Resource Software International Ltd.

WinLINK Remote CCM
for Cisco Call Manager
Users Guide

Resource Software International Ltd.

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1.0 Introduction

Resource Software International Ltd. (RSI) is a dynamic, Canadian-owned development and distribution company specializing in voice and data management systems.

Our unique approach to data storage, call management, carrier comparisons, equipment billing, bill analysis, network management and computer telephony integration (CTI) have given RSI the competitive advantages in a market dominated by outdated and inflexible systems.

RSI believes communication is the essential key in a competitive world that demands instantaneous results. The influx of long distance providers, countless rate structures and discount calling plans has left many telecom managers baffled about best available services.

1.1 Product Overview

Resource Software International (RSI) Ltd. is the proud developer of ***WINLINK Remote CCM for Cisco Call Manager*** software. The WinLINK software continues our unique approach to data storage/collection. Similar to our previous WinLINK and TeleLINK products RSI utilizes software and a non-dedicated computer as a cost-effective solution to your company's CDR data collection. WINLINK eliminates the need for expensive proprietary hardware solutions. This version of WinLINK is specifically designed for the Cisco Call Manager platform. This 32-bit application connects to a Cisco Call Manager utilizing either a dial-up or TCP-IP connection. The Cisco Call Manager creates and stores telephone data records (CDR) into an SQL database located on its hard drive. The WinLINK software performs an SQL Query (i.e. connects to the Cisco Call Manager and retrieves these stored CDR records) to retrieve this data from the Cisco Call Manager. The telephone records collected by the computer operating our WinLINK software are stored onto its hard drive for retrieval by other RSI applications (i.e. Call Accounting Mate). These applications may be either located on the same computer or located on another network workstation. This software is year 2000 compliant.

RSI is committed to continued refinement and enhancement of all our product line. To assist us in future enhancements, both with the product itself and the effectiveness of our literature and documentation, you are invited to call Resource Software International Ltd. at (905) 576-4575.

1.2 Notice

Resource Software International Ltd. reserves the right to make improvements to the product described in this manual at any time and without notice. This document contains no warranty of any kind with regard to this material, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Resource Software International Ltd. shall not be liable for errors contained herein or for incidental consequential damages in connection with the furnishing, performance or use of this material or product.

In no event will Resource Software International be liable to you for any special damages including, any lost profits; lost savings, or other incidental or consequential damages, even if Resource Software International has been advised of the possibility of such damages, or for any claim by any other party. Some places do not allow the exclusion or limitation of special, incidental or consequential damages, so the above limitation or exclusion may not apply to you.

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2.0 RSI Support Services

The RSI Support Network provides you access to a wide range of facilities, services and responsive technical support personnel. We recognize that each customer is unique and requires special attention. Our international dealer network is backed by our team of technical support professionals. Support is available directly from our dealers. Annual support program provides customers direct access to the RSI Telecom Services Support Line, E-mail services, Diagnostic Dialup (where available) and upgrades.

If you have a question about your RSI product, first look in the printed documentation or consult its on-line help. If you cannot find the answer use one of the RSI Support Network options.

2.1 Direct Support

In United States and Canada, support is available to all customers during the 90 days following installation. Extended support may be obtained by subscribing to annual support programs. Eligible customers may call the RSI Telecom Services Support Line via a toll call between 8:30 AM and 5:00 PM Eastern time, Monday through Friday, excluding holidays.

- Facsimile Support Services (905) 576-4705
- Technical Support Services (905) 576-4575

When you call please be prepared to provide the following information:

- Product Version Number
- Type of hardware you are using, including network hardware, if applicable
- The operating system you are using and version number
- The exact wording of any errors or messages on your screen
- What tasks you were running or what you were doing when the error occurred
- What other applications were running at the same time
- How you tried to solve the problem

2.2 Electronic Support

Electronic Support Services are available 24 hours a day, 7 days a week, including holidays. You may send and receive mail messages to/from RSI Telecom Services representatives at:

Internet rsi@telecost.com

2.3 Purchasing Extended Annual Support

A comprehensive Extended Annual Maintenance program is strongly recommended. Annual Maintenance entitles customers to:

- Free software updates
- Telephone support from the RSI Telecom Services Support Line
- Special promotional discounts and new product announcements

2.4 Onsite Support and Training

To obtain onsite support or training please contact RSI for pricing information and scheduling.

You may contact us at:

Resource Software International Ltd.,
40 King Street West, Suite 300
Oshawa, Ontario.
L1H 1A4

3.0 Getting Started

The following section details the computer hardware requirements to operate our WinLINK IP & Serial Data Storage software. Installation instructions are also provided.

3.1 System Requirements for WINLINK

To use WINLINK, you need:

- Any IBM®-Compatible machine with a Pentium II processor or higher
- This software does NOT require a dedicated computer. The software can function on a computer that is used for other tasks (i.e. RSI call accounting software, word processing, spreadsheets, etc.).
- A CD-ROM or floppy drive (dependent on distribution media – normally CD)
- A hard disk drive with a minimum of 60 MB available (for most environments)
- At least 32MB of memory
- Microsoft Internet Explorer version 5 or later.
- MicroSoft® Windows 98™, MicroSoft® Windows NT™ Service Pack 6 or later, MicroSoft® Windows 2000™ , MicroSoft® Windows ME™ , MicroSoft® Windows XP™
- 1 Modem 56K recommended (optional - required if using dial-up connection to Cisco Call Manager)
- 1 Network Card and network connection (optional - required for TCP/IP connection to Cisco Call Manager)

A MicroSoft® mouse or compatible and Hayes® or compatible modem are recommended.

Any changes to the above requirements are found in your WINLINK Readme file on your distribution diskettes.

3.2 Installing WINLINK

The WinLINK Remote CCM for Cisco Call Manager module is included with our WinLINK IP and Serial Data Storage software. A single site license of this module is also included with our Call Accounting software. Multi-site licenses for this module can be obtained from RSI. For information on licensing information and pricing please contact RSI (see RSI Support Services).

Diskette, CD-ROM or Website Download Installations

This section provides instructions for installing our WINLINK software from CD-ROM or a website download. You must use the RSI Installation program to install WINLINK. The files on the program disk are compressed. You cannot copy the files directly to your hard drive. After you install the software, double-click the WINLINK Readme Help icon in the RSI/WINLINK program group. You will see the latest supplementary help file.

Follow these basic steps to install WINLINK. You can get help or quit the installation program at any time.

Step	Notes
1	Make sure that Windows, version 98 or later, is already installed on your computer or workstation. If Windows is not installed consult your Windows manual for installation instructions.
2	Start Windows™. If you are using WINLINK distribution diskettes, insert the first disk in drive A: or B:. Next, press the start button and then select the Run command. In the command line box, type **A:Setup** if you put the diskette in drive A: or **B:Setup** if you put the diskette in drive B:. Note: Installations with CD Rom or download from the internet should select and execute the **Setup.exe** program.
3	When Install starts, follow the instructions on your screen.

After you have successfully installed your WINLINK software you will need to add a profile to the software to connect to a Cisco Call Manager and retrieve its call records (see "Adding/Modifying a Cisco CCM Profile").

4.0 Starting WINLINK

WinLINK Remote CCM for Cisco Call Manager must be installed prior to its use. For information on how to install WINLINK please refer to the Installing WinLINK section of this guide.

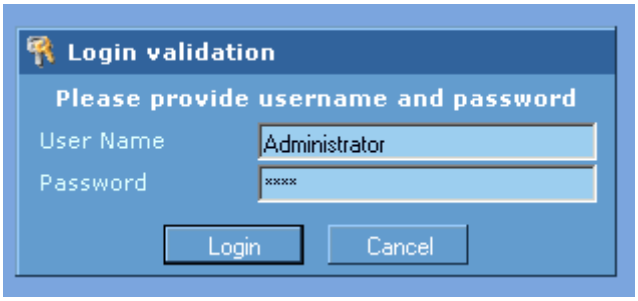
4.1 Call Accounting Mate

Use the following instructions to launch the WinLINK software with Call Accounting Mate software.

1. Press the Windows Start button.

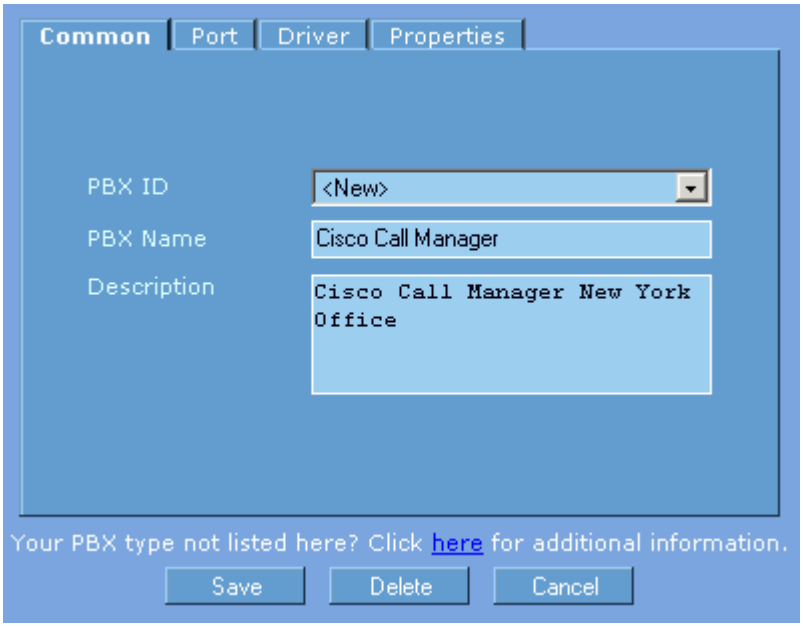
2. Next, click the Programs menu item.

3. Next, click the Call Accounting Mate program group and then find the Run Call Accounting Mate program icon and click on it. The Call Accounting Mate login window will now be displayed (if Call Accounting Mate is already running skip ahead to step 5).



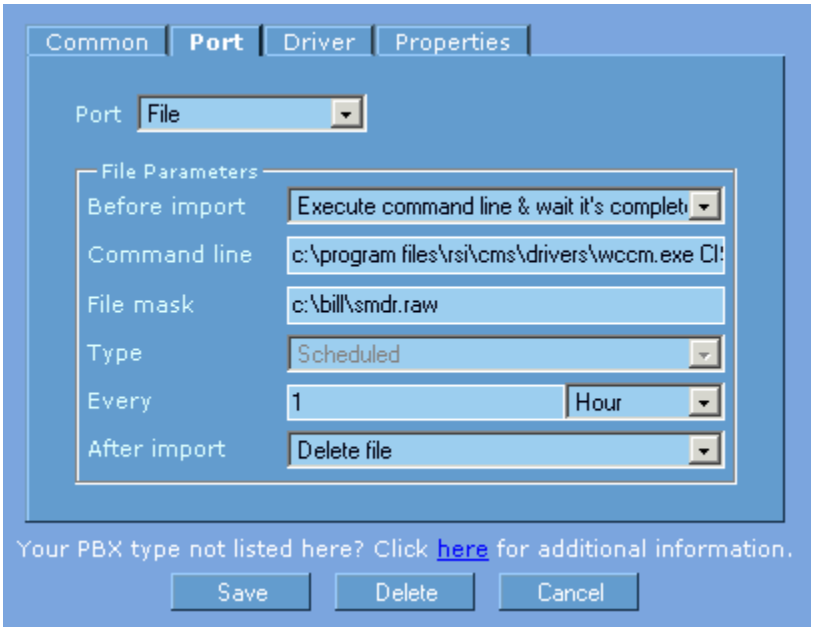
   Enter your Call Accounting Mate User Name and Password and press the **Login** button.

4. The Call Accounting Mate main window should now be displayed. Select the **PBX Communications** command from the **Configuration** menu. The communications settings dialog should now be visible on your screen.



Set the **PBX ID** box to <New>. Now enter a **PBX Name** (i.e. your Cisco Call Manager name or site name) and **Description** into the corresponding boxes (see above).

5. Next, select the PBX Communications dialog **Port** tab and set the **Port** option to **File**.



Set the **Before import** option to **Execute command line & wait its completed**.

The **Command line** option must contain the folder and file name of the WinLINK for Cisco Manager program followed by a valid CCM profile name. The format of this line is as follows:

<WinLINK CCM Program Folder and File Name> <WinLINK CCM Profile Name>

The **WinLINK CCM Program Folder and File Name** is the location on your hard drive where you installed the WinLINK for Cisco software (i.e. c:\program files\rsi\cms\drivers\wccm.exe). For more information see section 3.2 Installing WinLINK. The **CCM profile name** contains the required connection information to retrieve CDR/SMDR data from a Cisco Call Manager. You must use the WinLINK Remote CCM software to create a profile. For information on creating a profile please see the Adding/Modifying a Cisco Call Manager Profile section of this guide. For example if the CCM profile name is CCM1 then the Command line box should contain the following.

c:\program files\rsi\cms\drivers\wccm.exe CCM1

Set the **File Mask** option to the folder and file name where the WinLINK for CCM software is storing the Cisco SMDR/CDR data (i.e. c:\bill\smdr.raw). This file name can be found in the WinLINK CCM profile specified in the command line. For more information see the section 5.3 Retrieving Call Records of this guide.

Set the **Type, Every** and **After Import** boxes to *schedued, 1 Hour* and *Delete File* respectively (pictured above). Please note, if the After Import option is not set to *Delete File* call record data may be duplicated.

Press the **Save** button to store your configuration. The Call Accounting Mate software is now configured to retrieve data from a Cisco Call Manager.

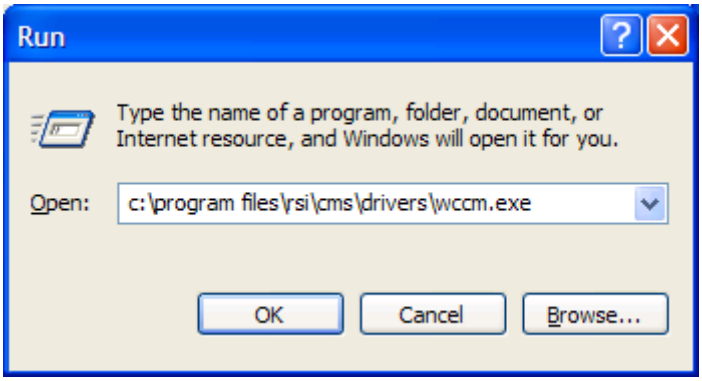
4.2 Stand-Alone WinLINK Software

To start the stand-alone WINLINK software please use the following steps:

1. Press the Windows **Start** button.
2. Next, click the **Programs** menu item.
3. Next, find the **RSI/WinLINK for CCM** program group and click on it.
4. Find the **WINLINK Remote CCM** program icon and click on it.
5. WINLINK will start.

Alternatively, you may find it easier to use the Windows **RUN** command. Follow these steps to use the RUN command.

1. Press the Windows **Start** Button
2. Select the **RUN** command. The following dialog should appear.



   Type **c:\program files\rsi\drivers\wccm.exe** in the Open box and then press the **OK** button. Alternatively a short cut for WinLINK may appear on your desktop. Simply double click this shortcut to start the WinLINK software.

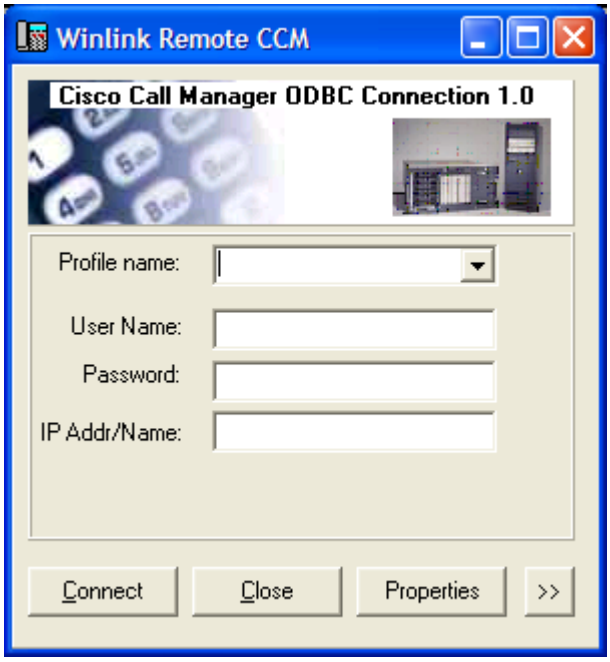
3. WINLINK will start.

4.3 The WinLINK Software

The first time you start the WinLINK software the Product Registration screen will appear.

Unless your WinLINK Software is registered it will operate on your computer for only 31 days. You can register your software at any time by pressing the **Register** button. You do **NOT** have to register the software to complete your installation. In fact you can continue to use your software for up to 31 days after it has been installed, without registering it. Press the **Register** button to register your software (for information on how to register your software see the "Registering your Software" section of this guide. Press the **Proceed** button to start using your WinLINK Software. Customer's using a trial version must press the Proceed button. Once the software is registered the above screen will no longer be displayed.

After pressing the Proceedd button the WinLINK Remote CCM for Cisco Call Manager main window will be displayed.



Press the **Connect** button to pull call records from the Cisco Call Manager identified by the currently selected profile. Please note, a profile for the Cisco Call Manager you wish to collect CDR records from must be created prior to connecting to it (see Adding/Modifying a Cisco Call Manager CDR Profile). Press the **Close** button to exit the WinLINK software. Press the **Properties** button to modify the currently selected profile.

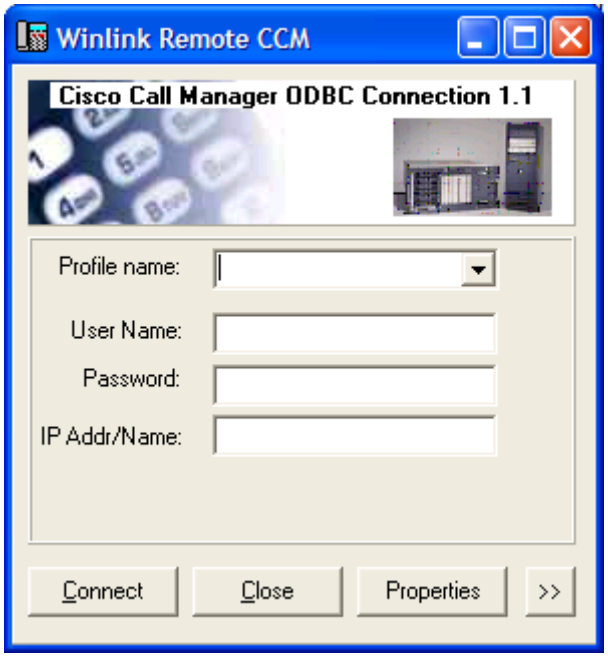
5.0 Adding/Modifying a Cisco Call Manager Profile

The WINLINK Remote CCM for Cisco Call Manager software can be configured to poll (collect) call records from multiple Cisco Call Managers utilizing both dial-up and TCP-IP connections. A WinLINK site license must be purchased for each Call Manager you are polling (contact RSI for licensing and pricing information – see RSI Support Services).

5.1 Creating/Modifying a Profile Name

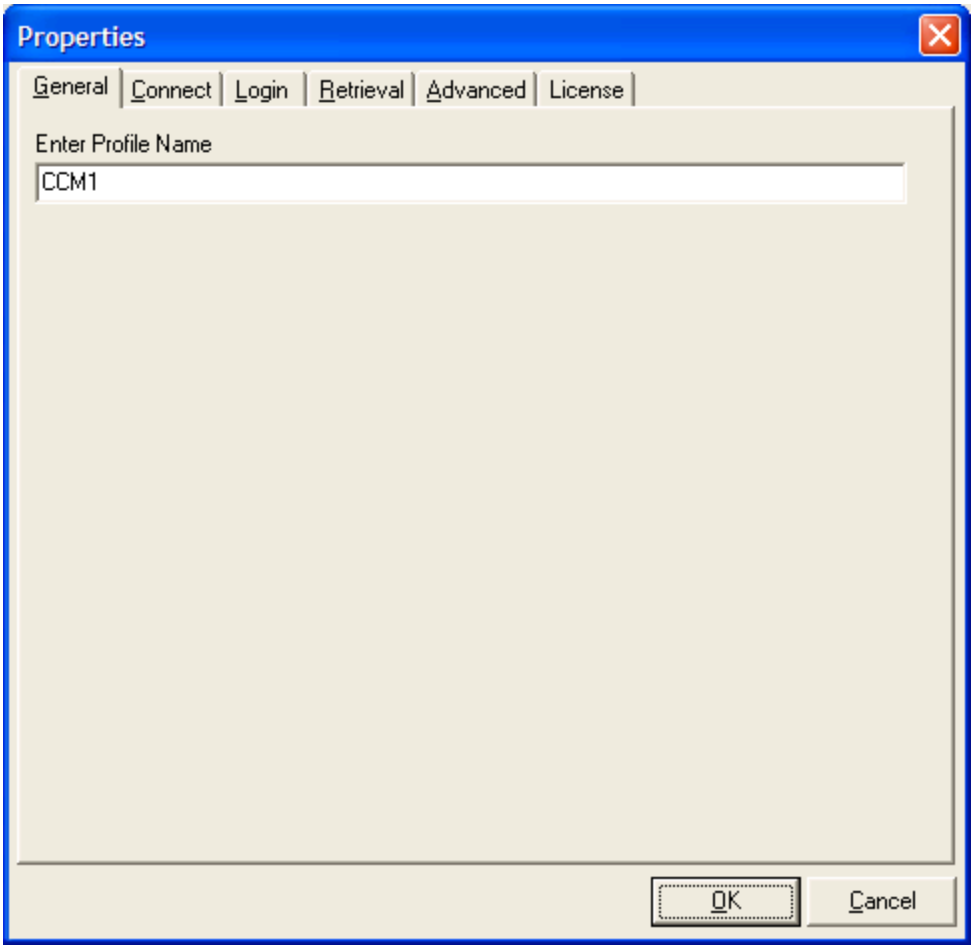
Use the following steps to configure the WinLINK software to poll a Call Manager.

1. Start the WinLINK Remote CCM for Cisco Call Manager software (see Starting WinLINK). The WinLINK main window should now be displayed on your screen.



2. A unique Profile name must be provided for each new Call Manager you are polling. Use a Profile name that identifies the Call Manager you will be polling (i.e. the location name or city where the Call Manager is located, a site number, etc.) Please note Profile names **CANNOT** contain spaces, instead use the underscore character '_'. For the purposes of this documentation we will call our profile name CCM1 (i.e. CCM from site 1). Type CCM1 into the profile name box. If the profile name box already contains information simply highlight and delete the existing name and then enter the new profile name. If the Profile name already exists the User Name, Password, and Server Name boxes will contain the site's corresponding connection information, otherwise these boxes will be blank. If you are adding a new site these boxes must be blank. You can modify an existing profile by selecting it from the Profile name list.

3. Press the **Properties** button to modify/create the profile's settings. The WinLINK Properties dialog box will be displayed. Now, press the **General** tab (first tab, top left corner). The General properties will now be displayed.



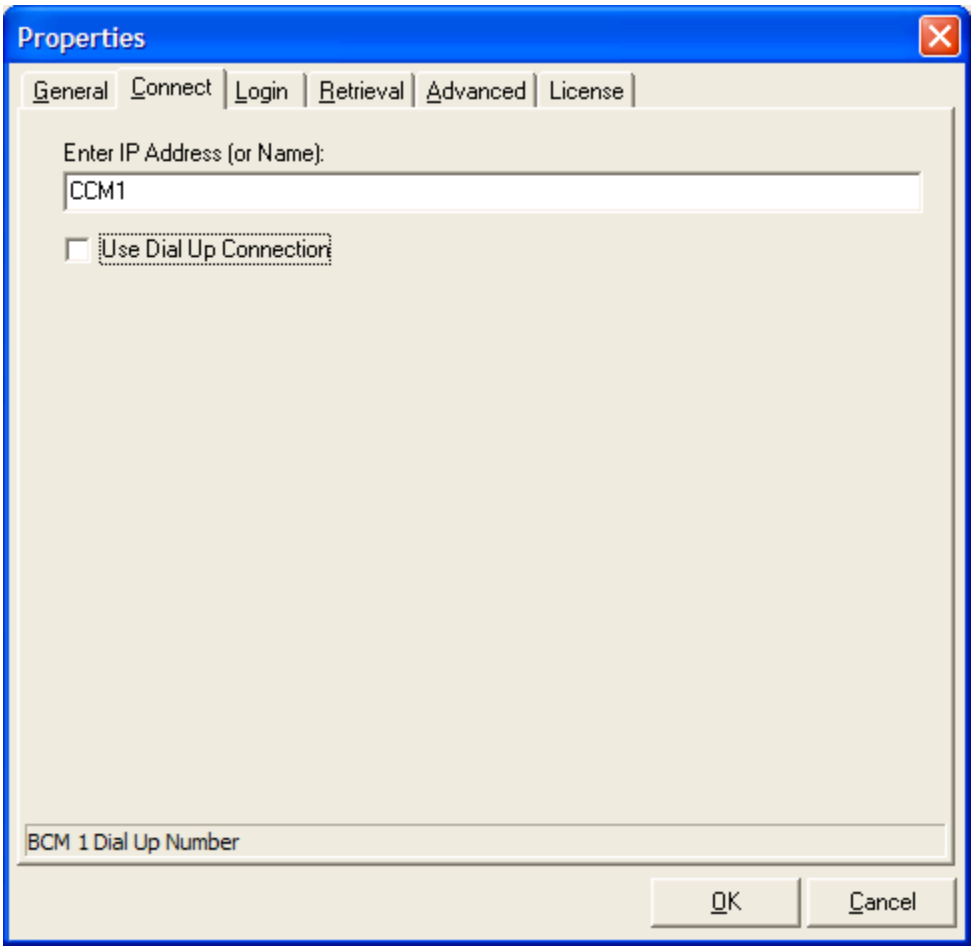
The **Enter Profile Name** option should contain the profile name you specified in step 2. You can change the profile name by simply modifying the contents of this field.

Press the OK button to save any changes you have made on any of the Properties tabs to the currently selected WinLINK Profile. Press the Cancel button to ignore any of the changes you have made.

5.2 Connecting to the Cisco Call Manager

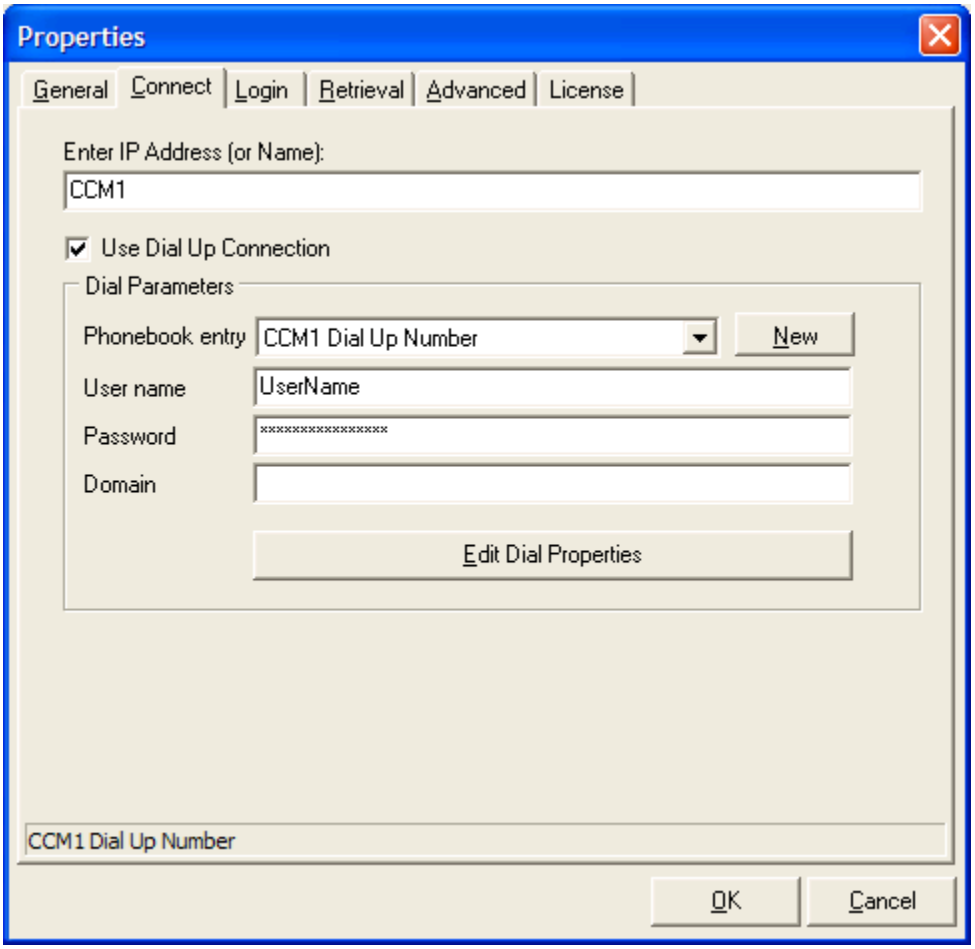
The WinLINK software utilizes an ODBC connection to connect to a Cisco Call Manager and retrieve its call records. Use the following steps to create an ODBC connection to a call manager.

1. The WinLINK software can connect to multiple Cisco Call Managers. Select the Profile of the Cisco Call Manager you would like to connect to and then press the **Properties** button. The WinLINK Properties dialog box will be displayed. Now, press the **Connect** tab. The Connect properties will now be displayed.



Use the **Enter IP Address (or Name)** box to identify the Cisco Call Manager you wish to poll (i.e. collect CDR records from). This box should contain either the computer name of the Call Manager or its IP address. Contact either your network administrator or telephone equipment vendor if you require assistance obtaining this information. In the above example, the Call Manager name is CCM1. Please note it is merely a co-incidence the profile name and Cisco Call Manager name are the same. These two fields are not related.

The **Use Dial Up Connection** check box should be unchecked if you are connecting to the Cisco Call Manager via your LAN or corporate WAN. If you are connecting to the Call Manager by dial-up check this box. When this option is checked the connect tab will display the following additional options.



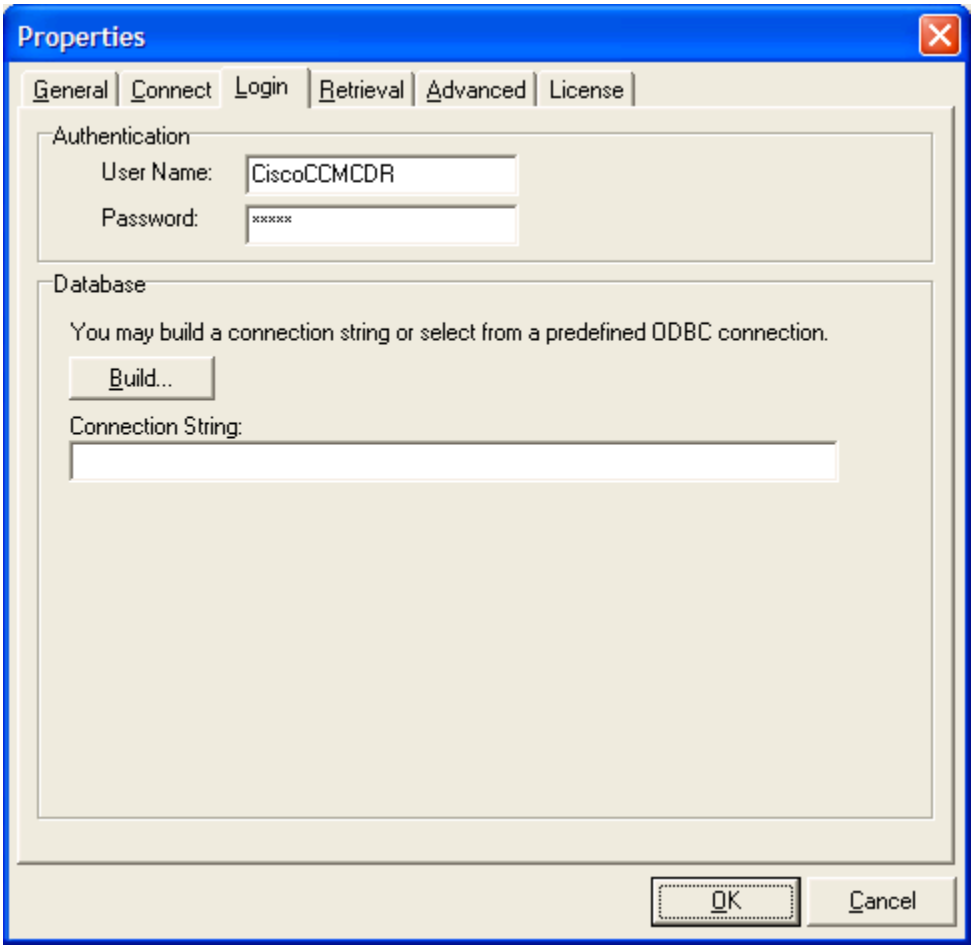
Use the **Dial Parameters** options to specify the Cisco Call Manager's dial up information.

Use the **Phonebook entry** option to select the corresponding Call Manager's dial up information. If the Call Manager's dial up information is not contained in this list press the **New** button. Windows built-in New Connection Wizard will launch. Use this connection wizard to create the new phonebook entry required to connect to the Call Manager by dial-up. For information on how to create a new phonebook entry using the New Connection Wizard consult Microsoft Windows On-line Help.

Use the **User name**, **Password** and **Domain** options to login into the Call Manager you are connecting to via dial-up. The User name and Password boxes must contain the Call Manager's login user name and password. Contact your telephone system coordinator or equipment if you need assistance obtaining this information. The domain name is normally not required and in most cases should be left blank.

Press the **Edit Dial Properties** button to verify and/or modify the dial-up phone number, dialing options, redialing options, etc. Except for the dial-up phone number the default values assigned to these options by windows should not need to be changed.

2. Press the **Login** tab. The Login properties should now be displayed.

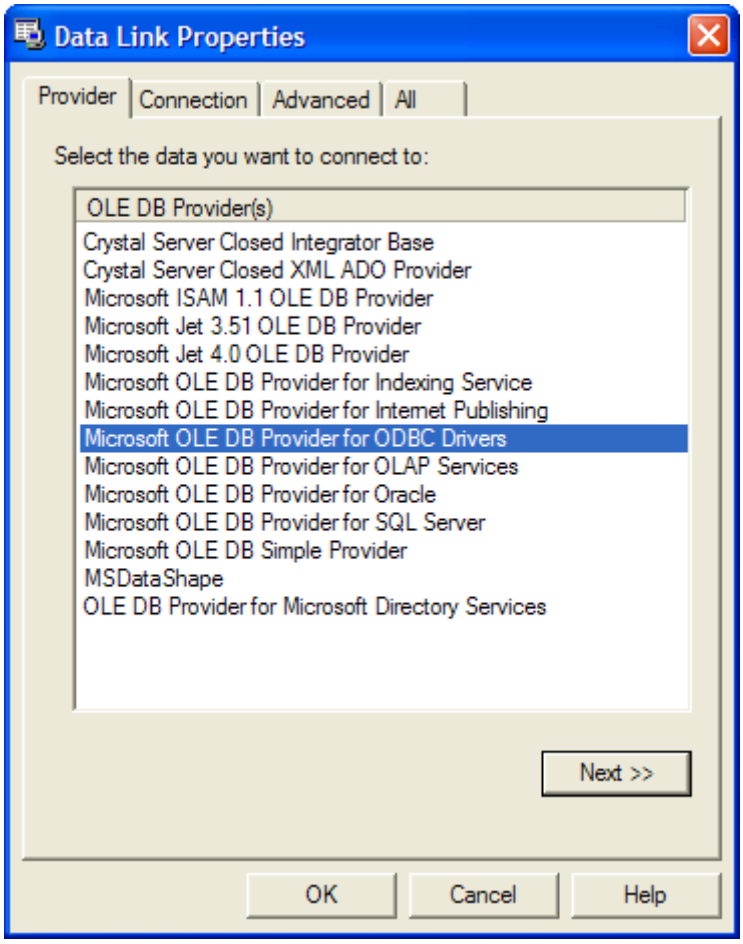


Use the **Authentication User Name** and **Password** boxes on this screen to specify the Call Manager's CDR database's user name and passwords. The default User Name and Password is CiscoCCMCDR and dipsy, respectively. Contact your telephone system coordinator or equipment provider if you need assistance obtaining this information. If the user name and password provided here are incorrect you will be unable to collect call records from the Call Manager's CDR database.

3. Use the **Database** options to build an ODBC Connection String to connect to your Cisco Call Manager server. An ODBC connection must be established with the Cisco Call Manager to retrieve its CDR records. Contact you network administrator or RSI Support Services if you require assistance with this step.

   Press the **Build** button to create a new ODBC connection string (see step 4).

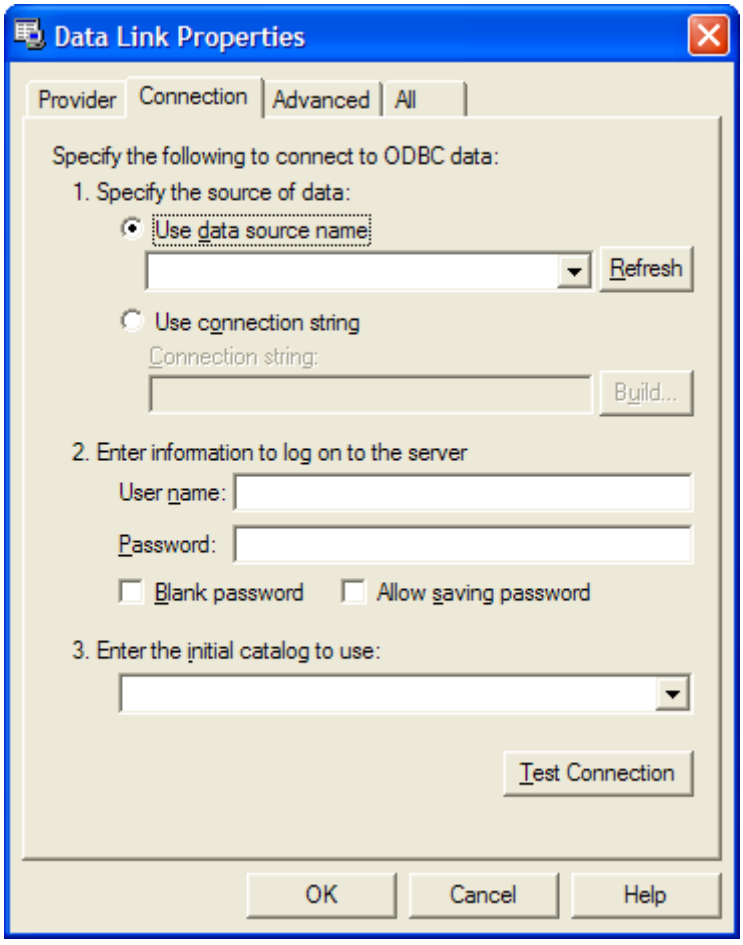
4. Pressing the Build button launches Windows built in ODBC Connection Wizard. The **Data Link Properties Provider** window should now appear. Please note on some versions of windows this window may not displayed – skip ahead to step 5.)



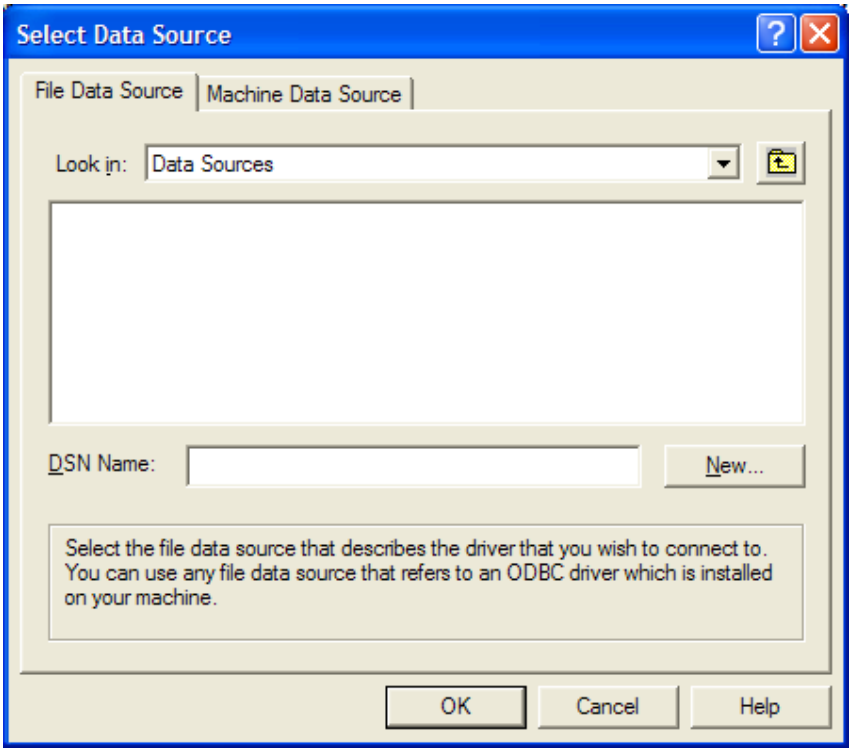
Select the **Microsoft OLE DB Provider for ODBC Drivers** option from the list of **OLE DB Provider(s)**.

Now press the **Next >>** button.

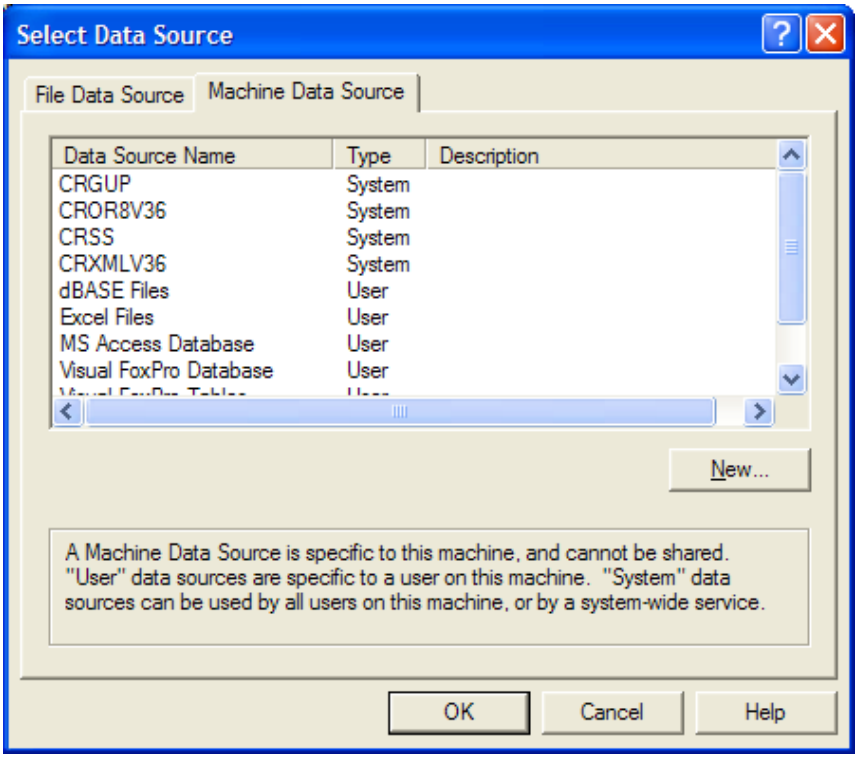
5. The **Data Link Properties Provider** window should now appear.



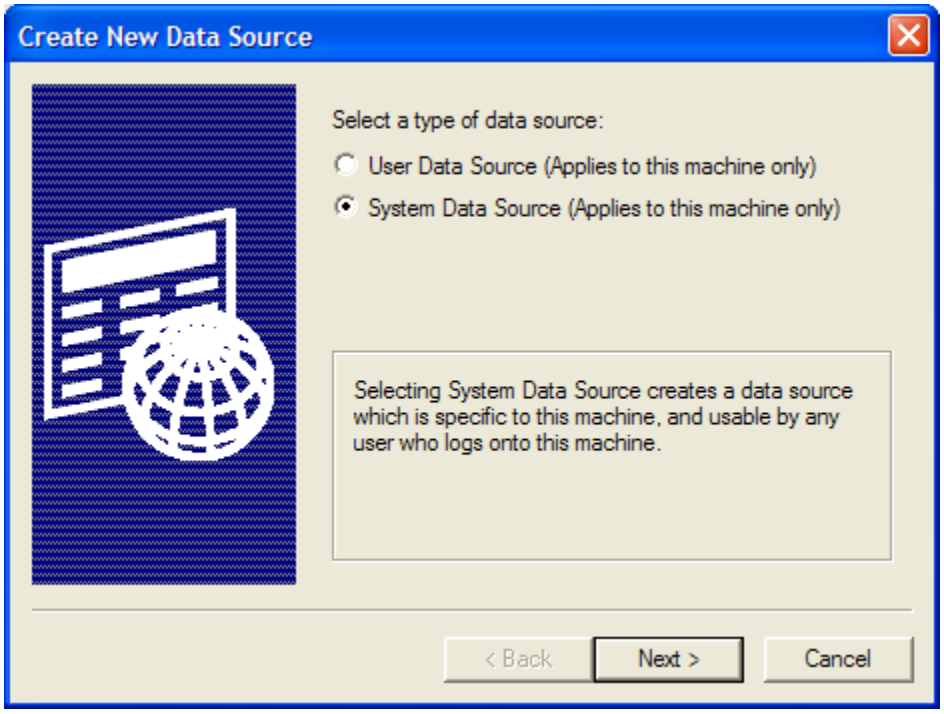
First, you must **Specify the source of data** being used to connect to the Cisco Call Manager CDR Database. If you have previously created a data source connection to your Cisco Call Manager server select the **Use data source name** option and select it from the drop down list. However, if this is the first time you are attempting to connect to your Cisco Call Manager from this computer select the **Use connection string** option. Next, press the **Build** button. The following window should be displayed on your computer screen.



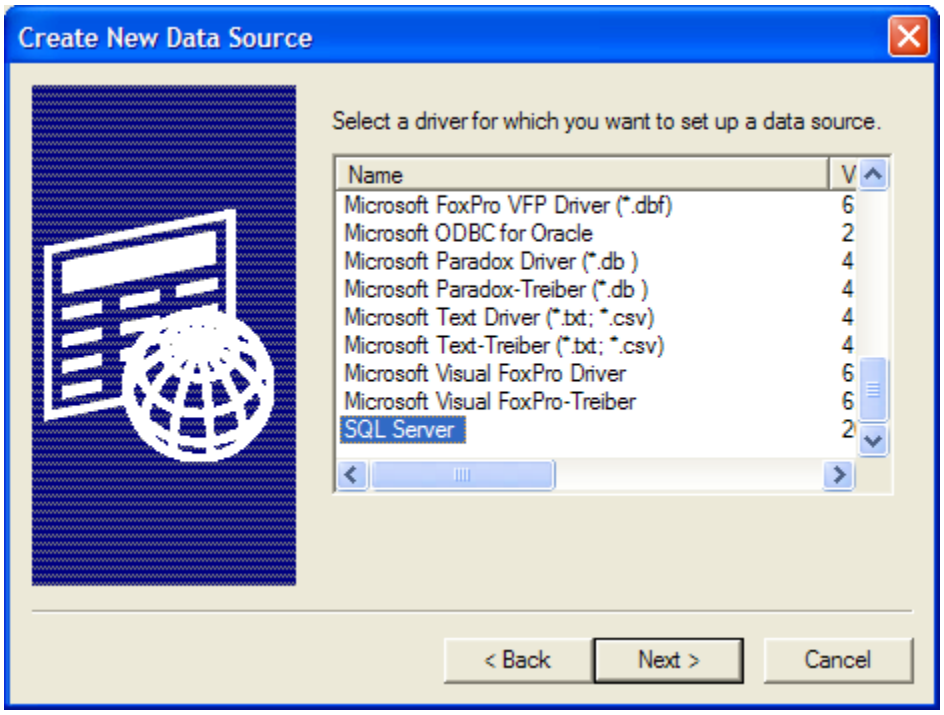
Next, click the **Machine Data Source** tab. The following dialog box should now appear on your screen.



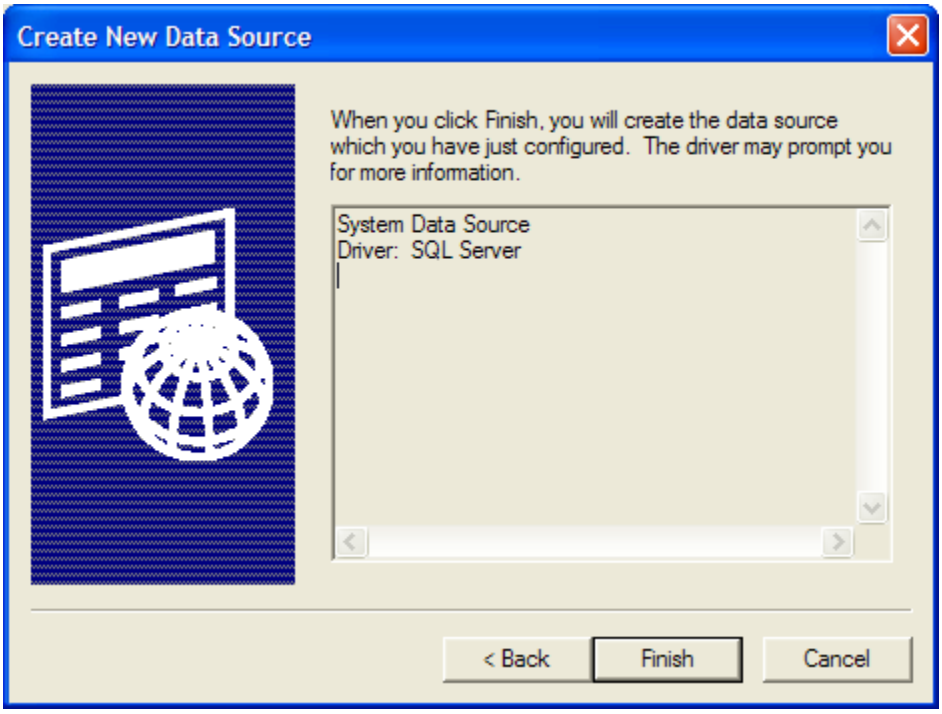
Next press the "**New**" button. The following window should now appear on your screen.



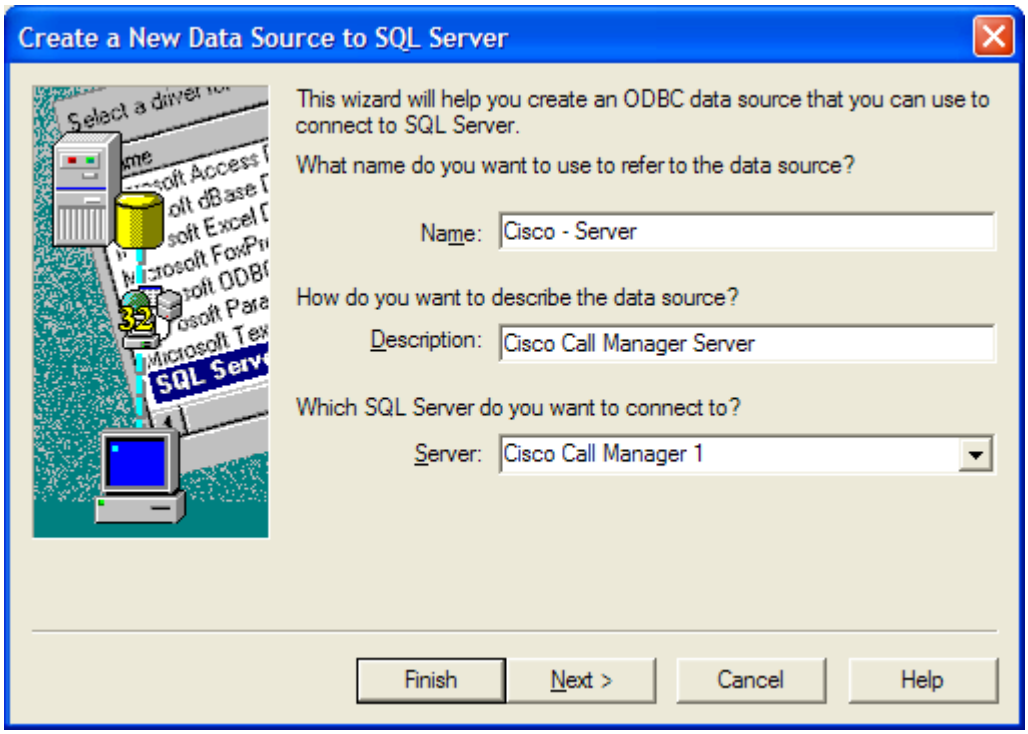
Select the **System Data Source (Applies to this machine only)** option and then press the **Next** button. The following window should now appear.



Select the **SQL Server** item from the driver list and the press the **Next** button. The following confirmation window should now appear.



Press the **Finish** button to launch the SQL Server Data Source Connection wizard. The following window should now appear on your screen.

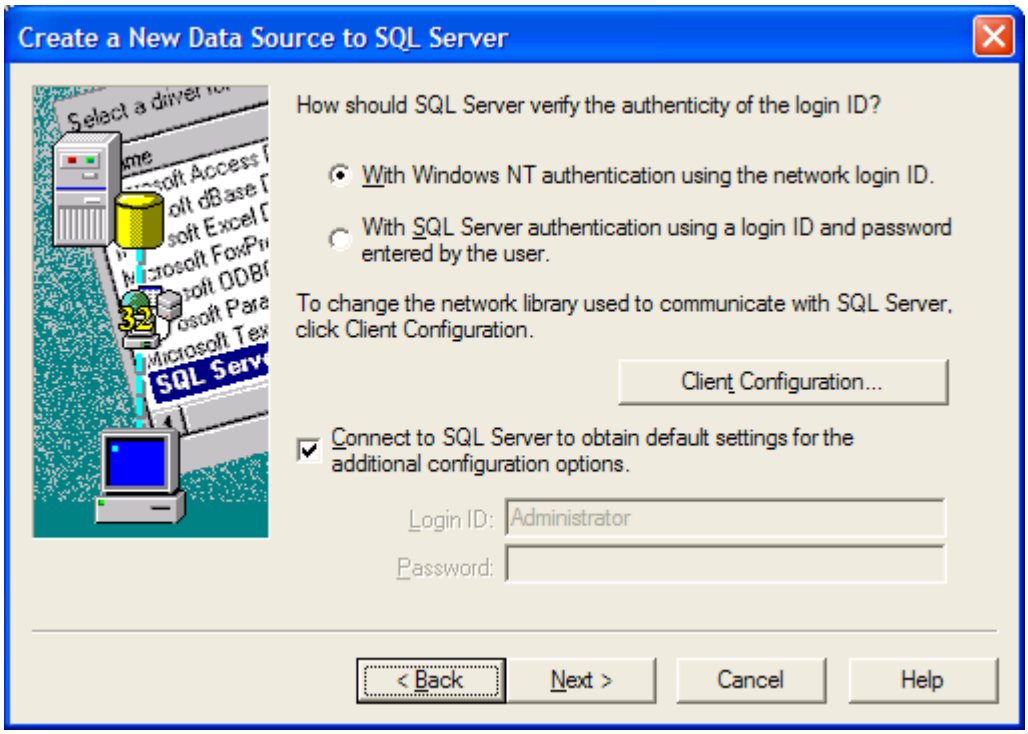


Use the "**What name do you want to use to refer to the data source?**" option to assign a name to your new data source. This name is for descriptive purposes only and does not affect its functionality. In the above example we have specified a name of Cisco – Server.

Use the **"How do you want to describe the data source?"** option to provide a brief description of your new data source. This description does not affect the data source's functionality. In the above example we have provided the description "Cisco Call Manager Server".

Click the Server drop down list to specify "**Which SQL Server do you want to connect to?"**. A list of available servers will be displayed. Scroll through the list and select the computer name of your Cisco Call Manager Server. Please make sure you select the correct item. If the wrong item is selected you will be unable to collect SMDR/CDR records from your telephone system (contact either your network administrator, telephone system co-ordinator or telephone equipment provider for assistance). If your Cisco Call Manager name does not appear in this list then type its IP address into this box. In the above example we have selected the "CISCO CALL MANAGER 1" computer. Please note your Cisco Call Manager is not likely named this.

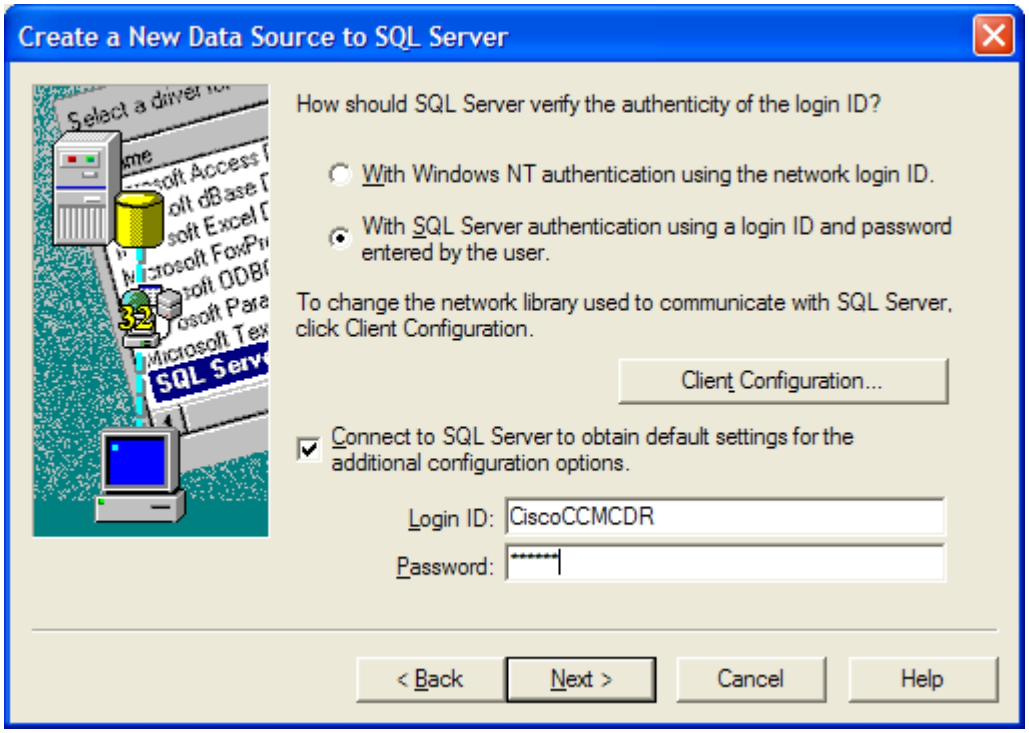
Once all the above items have been completed successfully, press the **Next** button. The following window will now appear.



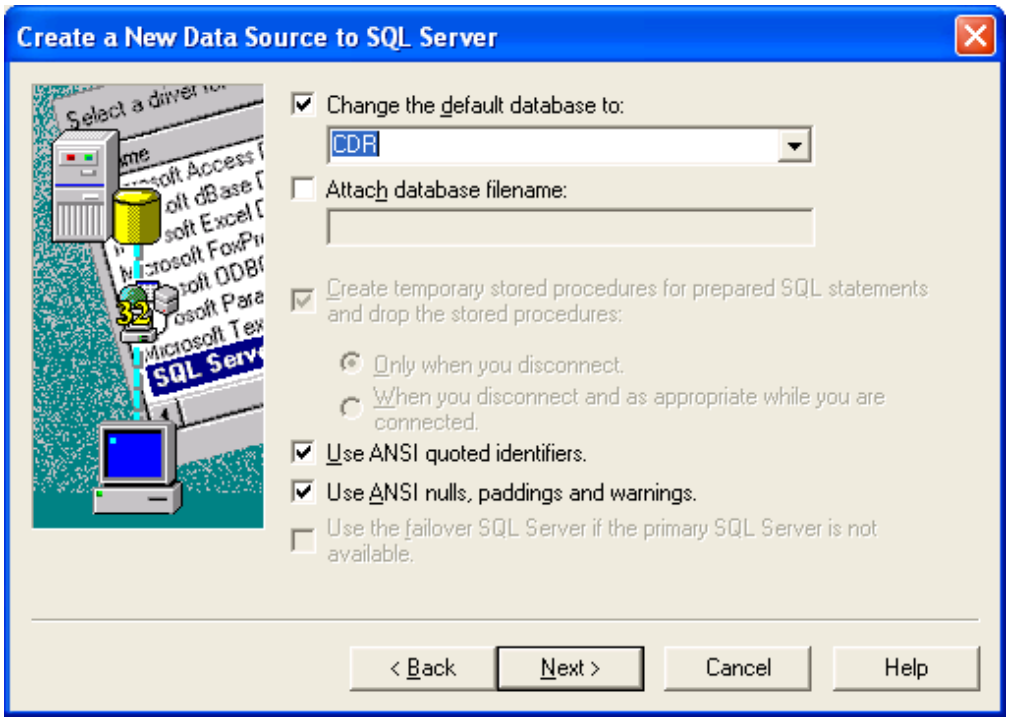
Customers utilizing Cisco Call Manager Version 4.x or later must select the **With Windows NT authentication using the network login ID** option. Next, check the "**Connect to SQL Server to obtain default settings for the additional configuration options**". An example of how to complete this screen for connections to a Cisco Call Manager Version 4.x or later is depicted above. Press the Next button to continue (skip ahead to the second picture on the next page).

Customers utilizing Cisco Call Manager 3.x or earlier must select the "**With SQL Server authentication using a login ID and password entered by the user"** option. Next, check the "**Connect to SQL Server to obtain default settings for the additional configuration options**" item and specify the Cisco Call Manager CDR database's **Login Id** and **Password**. Please note these items are case sensitive and must be entered correctly or this operation will fail. The default Login ID and Password are **CiscoCCMCDR** and **dipsy**. An example of how to

complete this screen for connections to a Cisco Call Manager Version 3.x or earlier is depicted below.

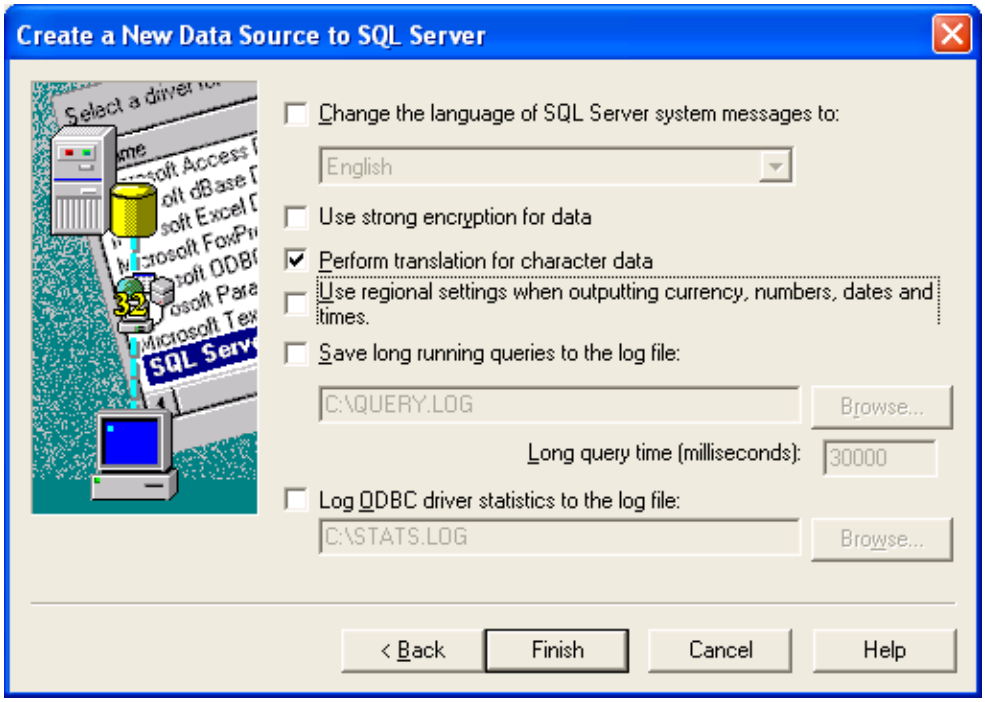


Press the Next button to continue. The following window should now appear on your screen.



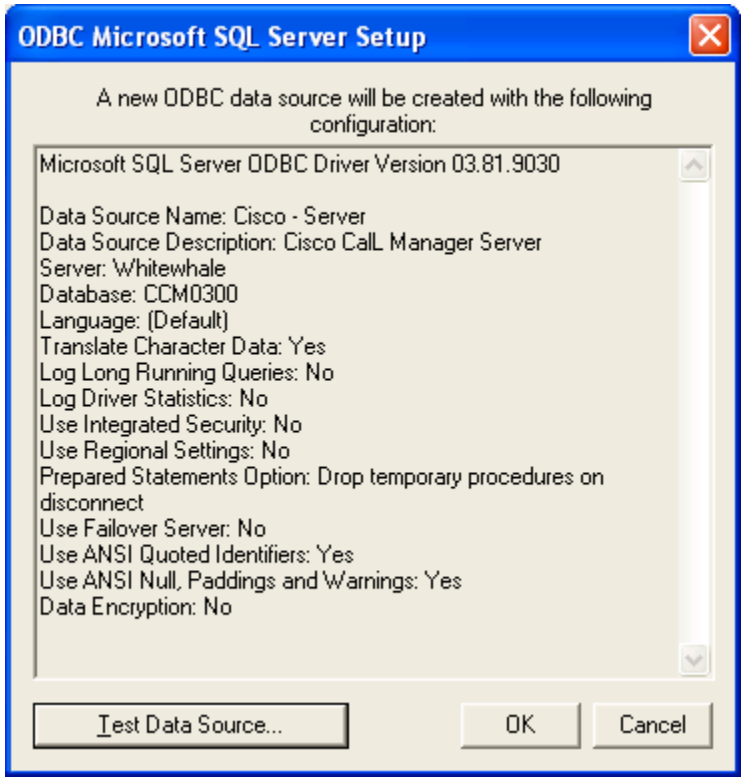
Check the "**Change the default database to**:" option and then select the name of the Cisco Call Manager's CDR database from the list below this prompt. Normally this database name is **CDR**. On earlier version of Call Manager this name may be based on its version number. For example if you have Cisco Call Manager version 3.00 this table is called CCM0300.

Next, make sure both the **Use ANSI quoted identifiers** and the **Use ANSI nulls, paddings and warnings** options are checked. Press the Next button to continue. The following window should now appear on your screen.

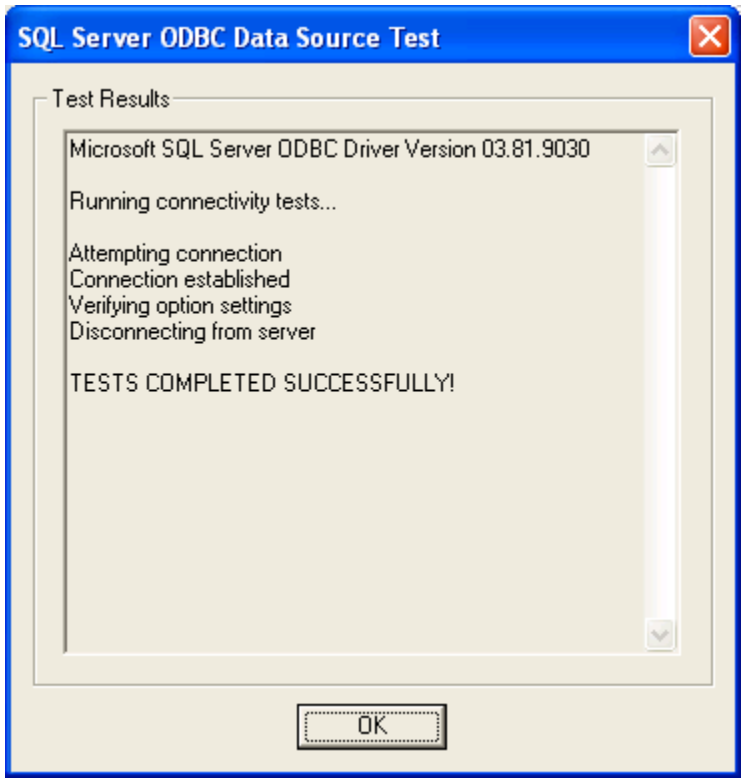


Verify the **Perform translation for character data** option is checked and then press the Finish button. You have now completed the Data Source Configuration Wizard.

The following verification screen should now appear.



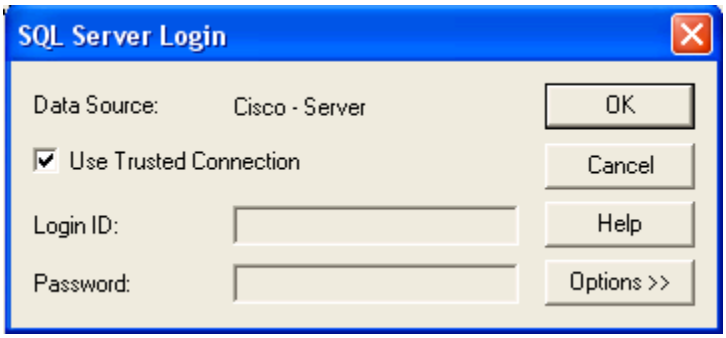
Press the **Test Data Source…** button to verify the new SQL Data Source connection to your CISCO Call Manager's CDR database. The following window should now appear.



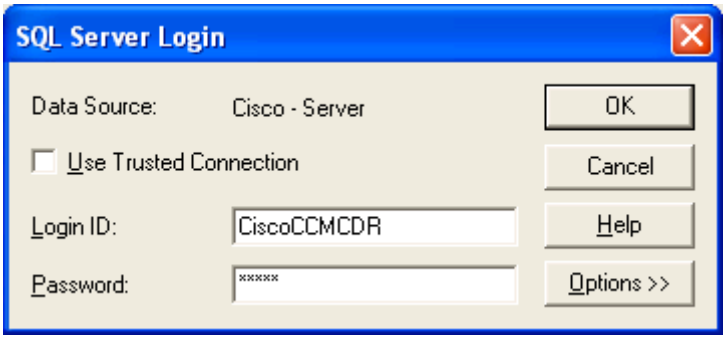
If the message **TEST FAILED** appears on your screen then press the **OK** button, then the **Cancel** button and then use the **< Back** buttons to review your configuration settings and verify they match the settings depicted above. For additional information see the trouble shooting section of this guide.

If the message **TESTS COMPLETED SUCCESSFULLY!** appears on the above window then you have successfully configured a connection to the Cisco Call Manager server. WinLINK can now collect telephone call records. Press the **OK** button and then the OK button again. The Select Data Source screen with the Machine Data Source tab visible should re-appear on your screen. Your newly created data source connection's name should now appear in this list. Using the above example the name 'Cisco – Server' should be displayed. Select it and press the OK button. The following SQL Server Login window should now be displayed.

If you are connecting to a Cisco Call Manager 4.x or later check the **Use Trusted Connection** option. Please note a login ID and Password is not required with this type of connection (pictured below).

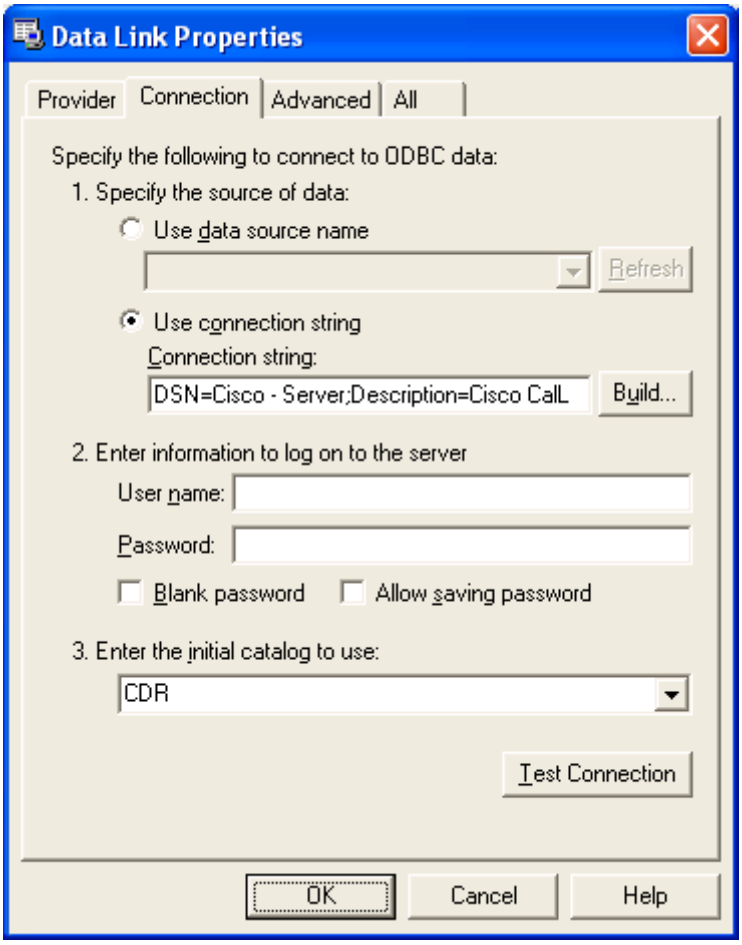


If you are connecting to a Cisco Call Manager 3.x or earlier do **NOT** check the **Use Trusted Connection** option. A login ID and Password (default is dipsy) is required with this type of connection (pictured below).

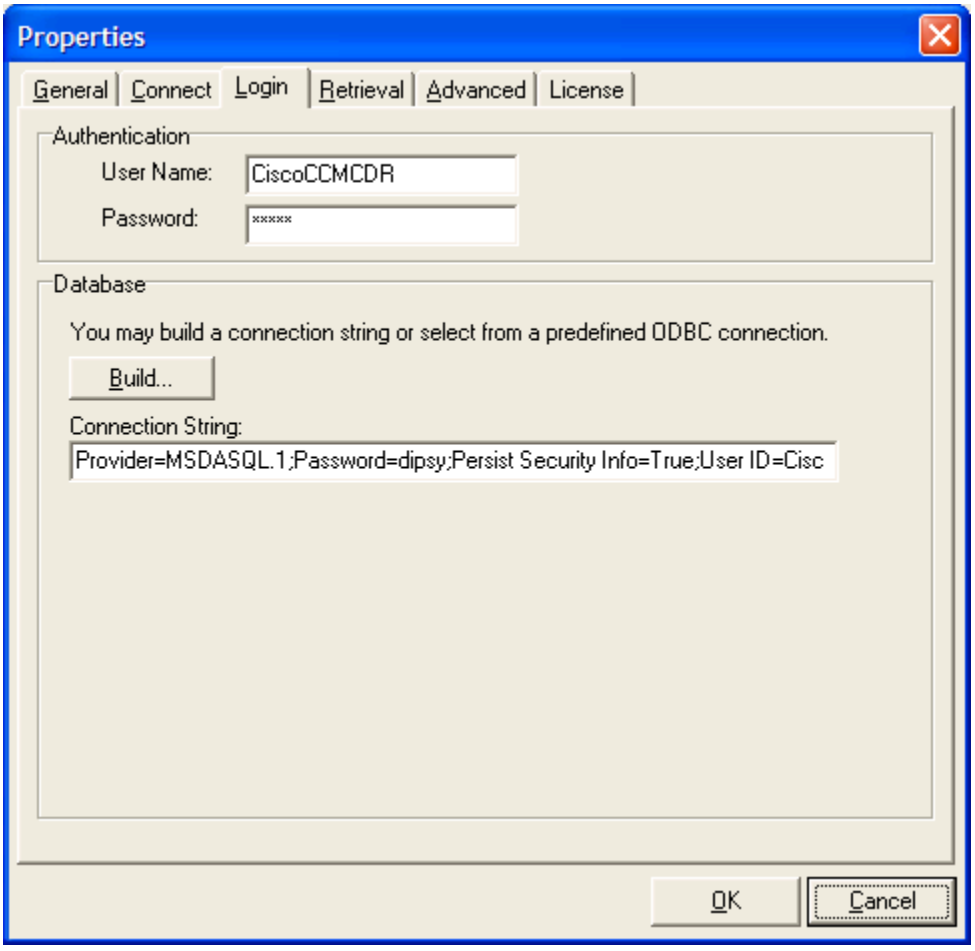


Press the OK button to continue.

The Data Link Properties screen will now be displayed.



The **Use connection string** option should be selected. The **connection string**, **User name**, **Password** and **Enter Initial catalog to use:** boxes should contain the values you defined using the wizard. Press the OK button to continue. Now WinLINK's ODBC Connection to SQL Server screen window should be displayed.



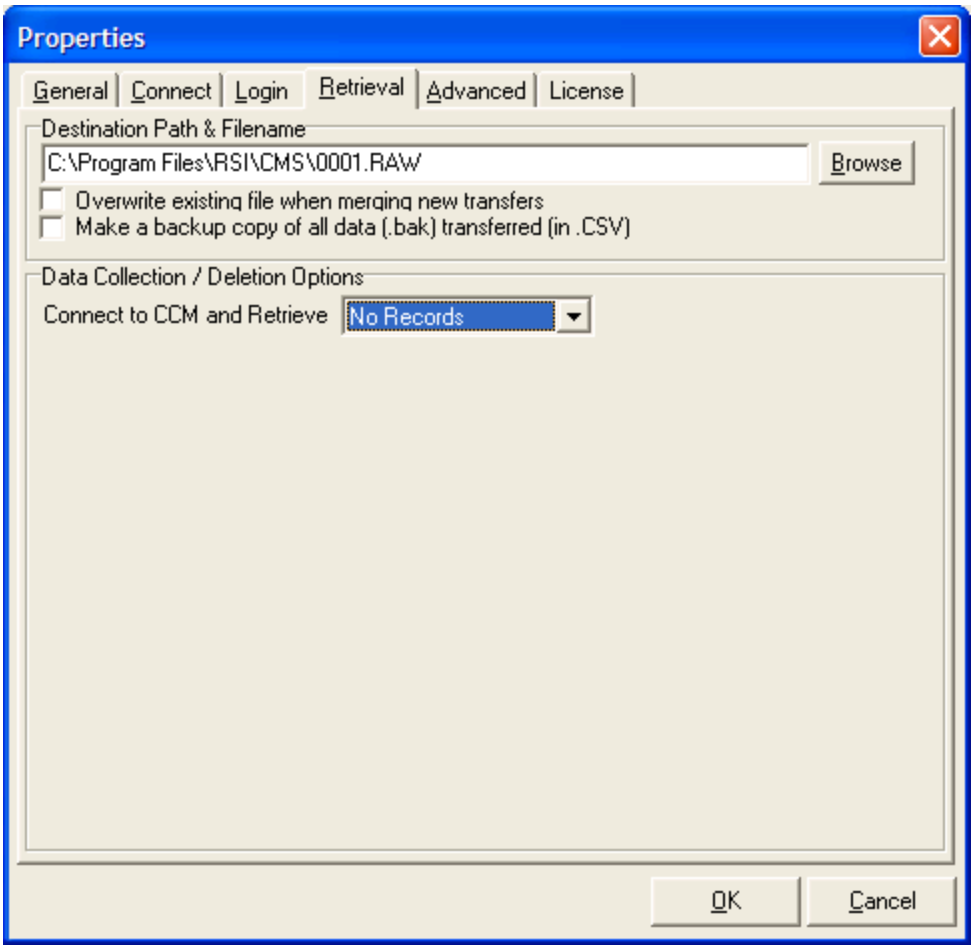
Notice both the **Authentication** and **Connection String** information contain the same information as the previous screen. These boxes now contain the required settings to create an SQL connection to your Cisco Call Manager server. Please note, for Cisco Call Manager version 4.x or later the User Name and Password boxes are blank (this is correct).

Press the OK button to save any changes you have made on any of the Properties tabs to the currently selected WinLINK Profile. Press the Cancel button to ignore any of the changes you have made.

5.3 Retrieving Call Records

An ODBC connection to a Cisco Call Manager is required before the WinLINK software can retrieve its call records (see Connecting to the Cisco Call Manager). Once a connection to the Call Manager has been established the WinLINK software utilizes a user selected collection method to retrieve its call records.

The WinLINK software can connect to multiple Cisco Call Managers. Select the Profile of the Cisco Call Manager you would like to connect to and then press the **Properties** button. The WinLINK Properties dialog box will be displayed. Next, press the **Retrieval** tab. The Retrieval Properties should now be displayed.



Use the Retrieval properties to specify which CDR records from the Cisco Call Manager are to be retrieved and where they are to be stored on the WinLINK computer. Please note the first time you poll call records from the Cisco Call Manager this operation may take a long time. For example, if the Call Manager was installed several months prior to invoking the retrieval operation and the user requested all records to be retrieved then this operation could take a very long time.

Use the **Destination Path & Filename** option to specify the file path and name of the file where the downloaded data will be stored.

If you are using the software with our **Call Accounting Mate** software then we recommend you store the data in the same directory as the Call Accounting Mate software (i.e. “c:\bill). The file name specified should be “smdr.raw” (i.e. the destination file path and name should be c:\bill\smdr.raw).

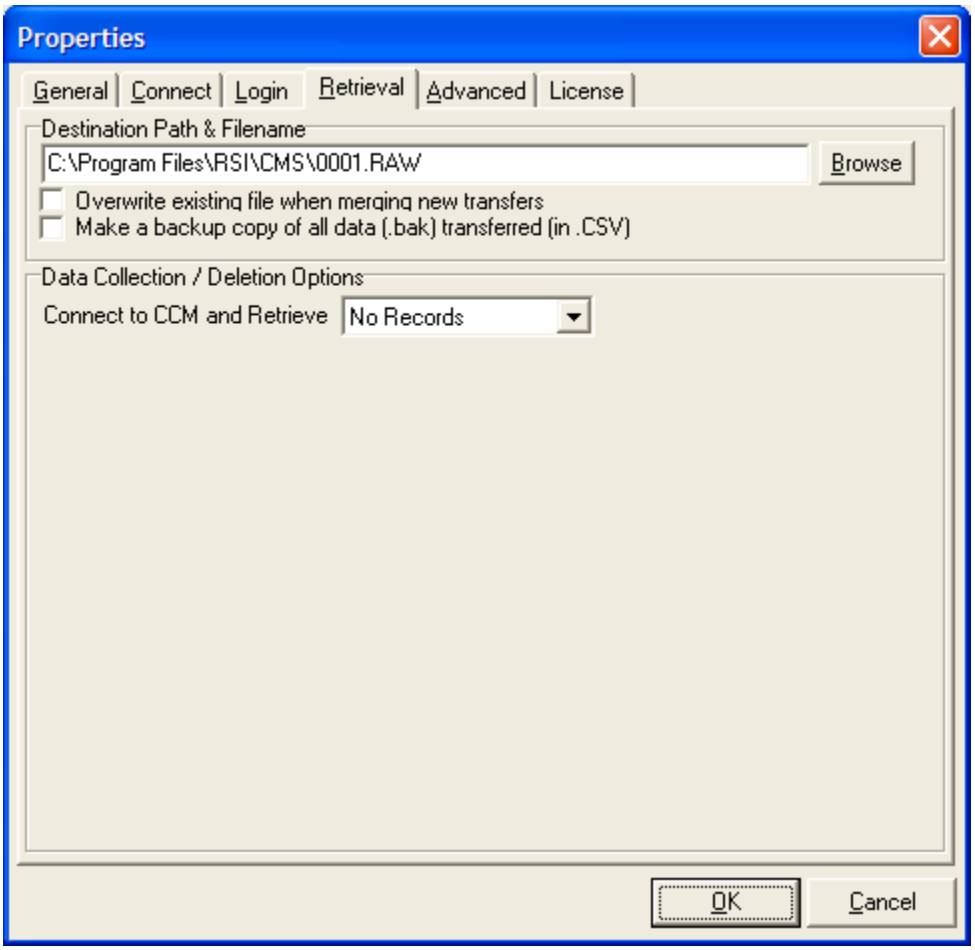
The **Overwrite existing file when merging new transfers** option should **NOT** be checked. Checking this option could cause you to loose data. This option should only be checked when you are instructed to do so by a trained RSI technician.

Use the **Data Collection / Deletion Options** to select which records to retrieve from the Cisco Call Manager and if the records are to be deleted after they are collected. There are five different record collection options: **No Records**, **All Records**, **New Records Only**, **By Date**, and **By SQL Query**.

Press the OK button to save any changes you have made on any of the Properties tabs to the currently selected WinLINK Profile. Press the Cancel button to ignore any of the changes you have made.

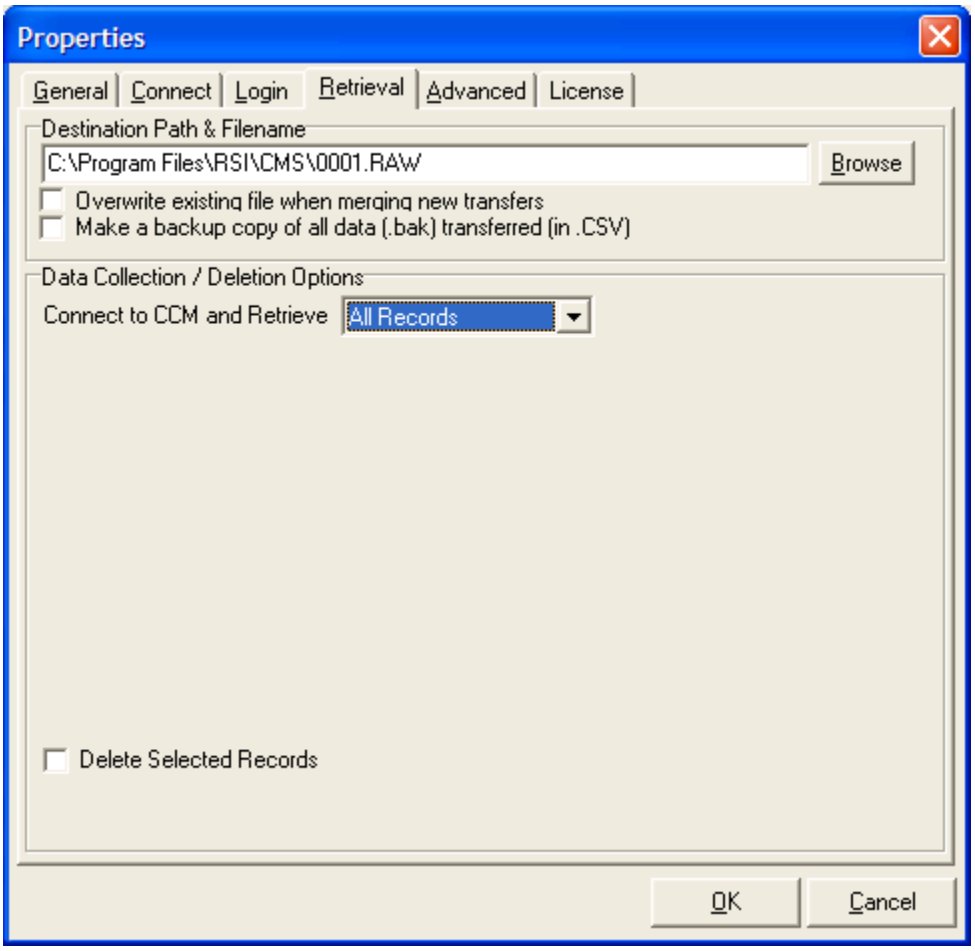
5.3.1 Collect No Records

The **No Records** option deactivates the record collection feature. It is not possible to collect or delete records when this option is selected. When this option is selected the Retrieval tab appears as follows:



5.3.2 Collect All Records

The **All Records** collection method retrieves all records currently stored in the Cisco Call Manager. When this option is selected the Retrieval tab appears as follows:

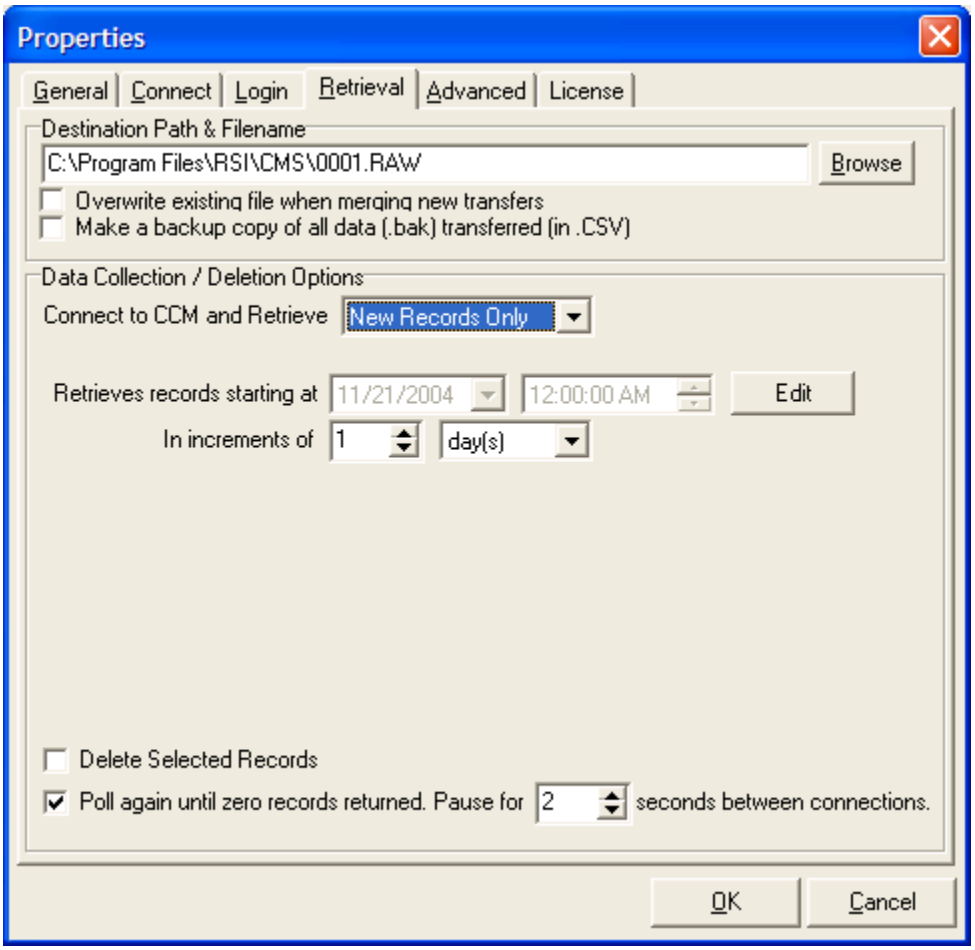


Activate the **Delete Selected Records** option to permanently delete all records after they are successfully retrieved from the call manager. If the delete option is not selected then every record in the Call Manager's database will be retrieved each time it is polled. This will result in duplicate records being added to the call accounting software. Instead of using the All Records method we recommend you utilize the New Record Only collection method to retrieve records from a call manager.

Note: If an error occurs during a retrieval or deletion operation any records retrieved will not be stored in the destination file nor deleted from the call manager. Please note the retrieve operation may fail when the Call Manager contains a large number of records (i.e. 100,000 or more). If you are unable to retrieve records using the All Records collection operation please use the New Records Only collection method.

5.3.3 Collect New Records Only

The **New Records Only** collection method retrieves all new records stored on the Cisco Call Manager since the last time the WinLINK software retrieved records. The first time this option is selected the WinLINK software will collect the most recent 12 months of call records. **Please note this is the recommended collection method**. When this option is selected the Retrieval tab appears as follows:



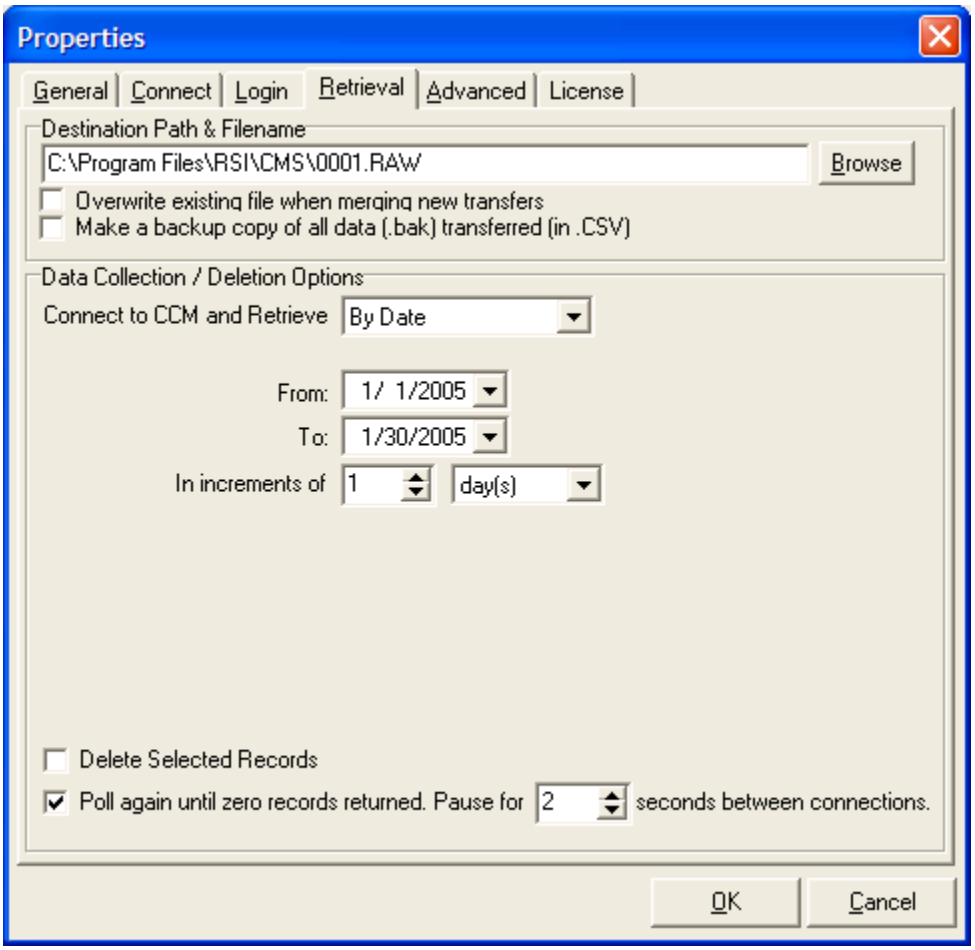
Press the **Edit** button to change the record collection start date and time. The first time the New Records Only option is activated the starting date will be 1 year earlier than the current date. Press the **Update** button to record your changes. If the update button is not pressed then the date changes will be ignored.

Use the **In Increments of** options to specify the number of minutes, hours or days to collect at a time. Please note, if the increment period specified contains too many call records this operation may fail. If the operation does fail reduce the size of the increment and try again. If the **Poll again until zero records returned** option is checked then the software will repeat the operation until all records have been retrieved. If this option is not checked the software will collect a single increment of call records from the Call Manager (i.e. a collection operation will have to be invoked to collect an additional increment of data). Use the **Pause for x seconds between connections** option to instruct the software to wait before collecting the next increment of records. The default value is 2 seconds.

Activate the **Delete Selected Records** option **(not recommended)** to delete all records collected in the specified increment after they have been successfully retrieved. If an error occurs during the retrieval or deletion operation the records for the current increment will not be stored in the destination file nor deleted from the Call Manager.

5.3.4 Collect Records By Date

The **By Date** collection method retrieves all records stored on the Cisco Call Manager within the specified date range. Please note this collection method is typically used only to recover old records from the call manager (for standard record collection use the New Records Only method instead). When this option is selected the Retrieval tab appears as follows:



Use the **From** and **To** date options to specify the date range of call records to be collected.

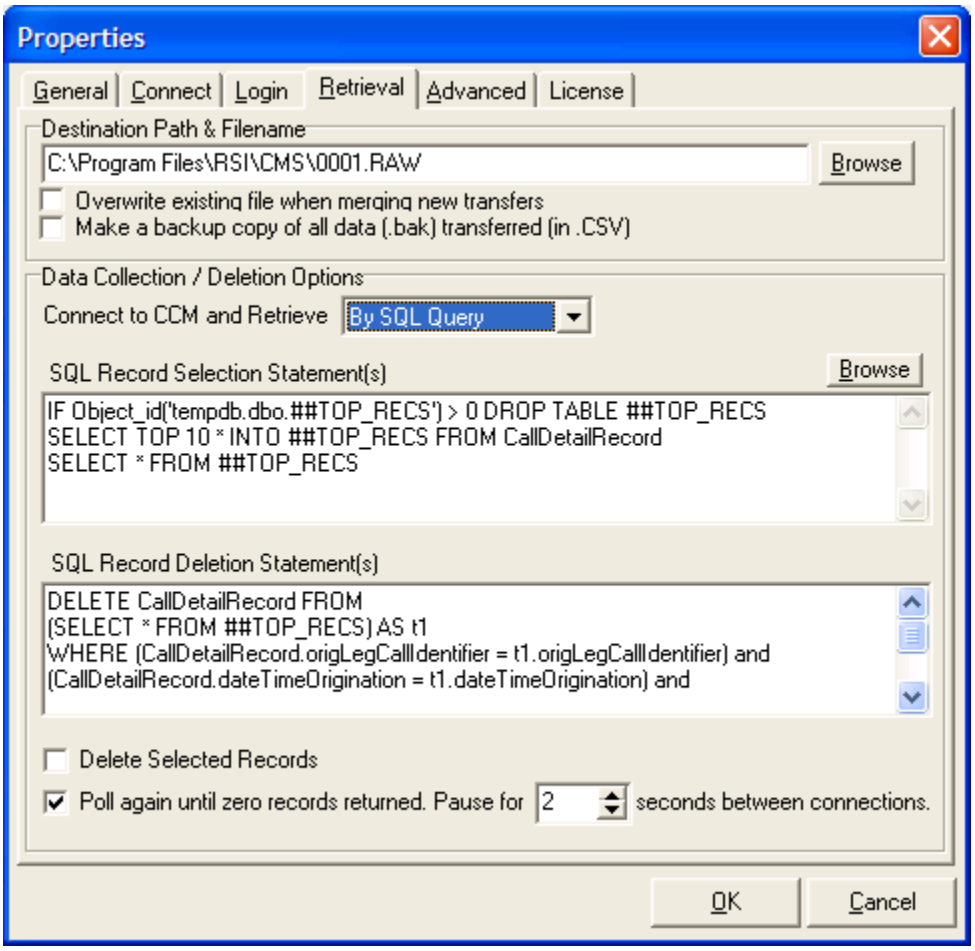
Use the **In Increments of** options to specify the number of minutes, hours or days to collect at a time. Please note, if the increment period specified contains too many call records this operation may fail. If the operation does fail reduce the size of the increment and try again. If the **Poll again until zero records returned** option is checked then the software will repeat the operation until all records in the specified date range have been retrieved. If this option is not checked the software will collect a single increment of call records from the Call Manager (i.e. a collection operation will have to be invoked to collect an additional increment of data). Use the **Pause for x seconds between connections** option to instruct the software to wait before collecting the next increment of records. The default value is 2 seconds.

Activate the **Delete Selected Records** option **(not recommended)** to delete all records collected in the specified increment after they have been successfully retrieved. If an error occurs during the retrieval or deletion operation the records for the current increment will not be stored in the destination file nor deleted from the call manager.

Please note the By Date collection option should only be executed a single time for each specified date range. Executing this option multiple times with the same date range or with overlapping date ranges will result in records being duplicated destination file.

5.3.5 Collect Records By SQL Query

The **By SQL Query** collection method retrieves all records stored on the Cisco Call Manager which satisfy the user specified query. Please note this collection method is typically used for custom collection operations. When this option is selected the Retrieval tab appears as follows:



The “By SQL Query” collection method should only be used by experienced SQL users. An incorrect SQL statement could cause serious errors to occur and/or lead to the loss of data. If you require assistance please contact RSI Support Services.

Use the **SQL Record Selection Statement(s)** box to specify the SQL query to be used to retrieve records from the Cisco Call Manager. Use the **SQL Record Deletion Statement(s)** option to select which records will be deleted from the Cisco Call Manager. Note the SQL record deletion statements

are only executed if the **Delete Selected Records** option is checked (**not recommended**). Additionally, the deletion statements are executed immediately after the SQL record selection statement(s) is completed.

When the **Pause for x seconds between connections** option is selected the software will repeatedly execute the SQL selection and deletion statements until no records are collected. The software will pause x seconds between each iteration.

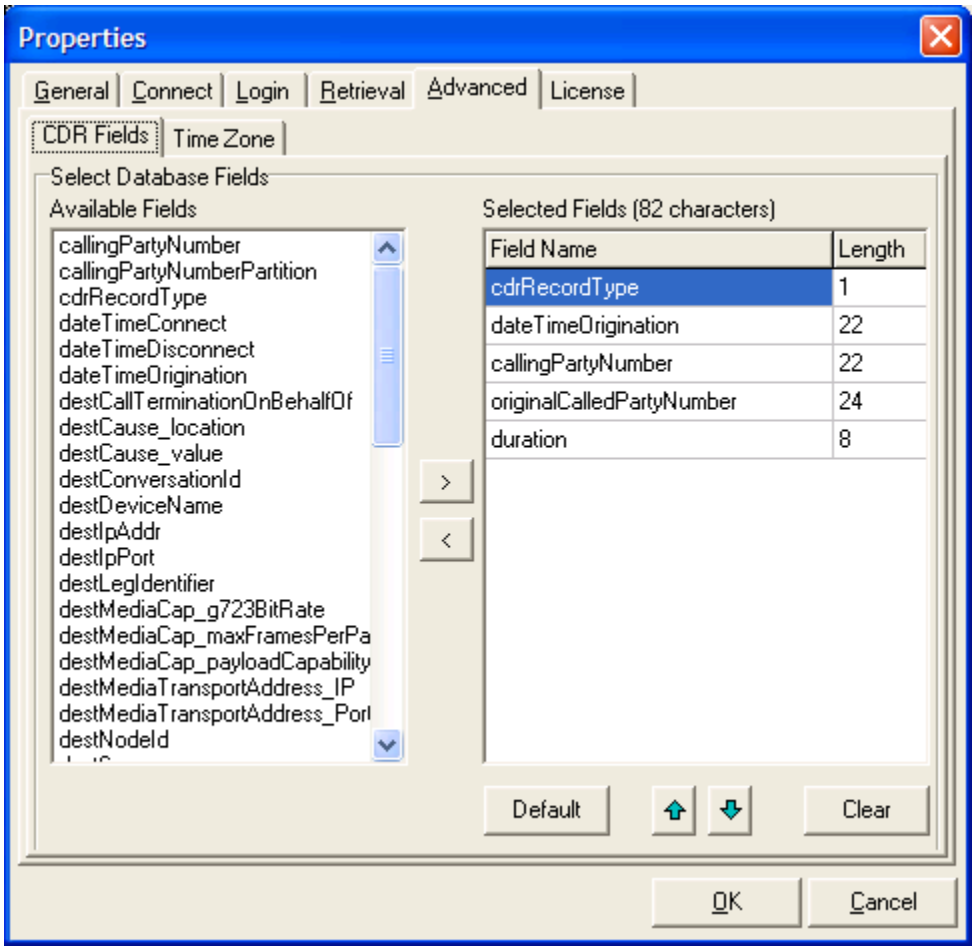
5.4 Advanced Options

Use the Advanced Options tab to select which fields of each call record are retrieved from the Call Manager's database (i.e. what information) and stored in the destination file name. Additionally, this option is also used to identify the time zone where the Cisco Call Manager is located.

Press the OK button to save any changes you have made on any of the Properties tabs to the currently selected WinLINK Profile. Press the Cancel button to ignore any of the changes you have made.

5.4.1 Selecting the CDR Fields

Access the CDR Fields option by selecting the desired Call Manager profile and then pressing the Properties button. Next press the **Advanced** tab and then click the **CDR Fields** tab. The CDR Fields properties should now be visible.

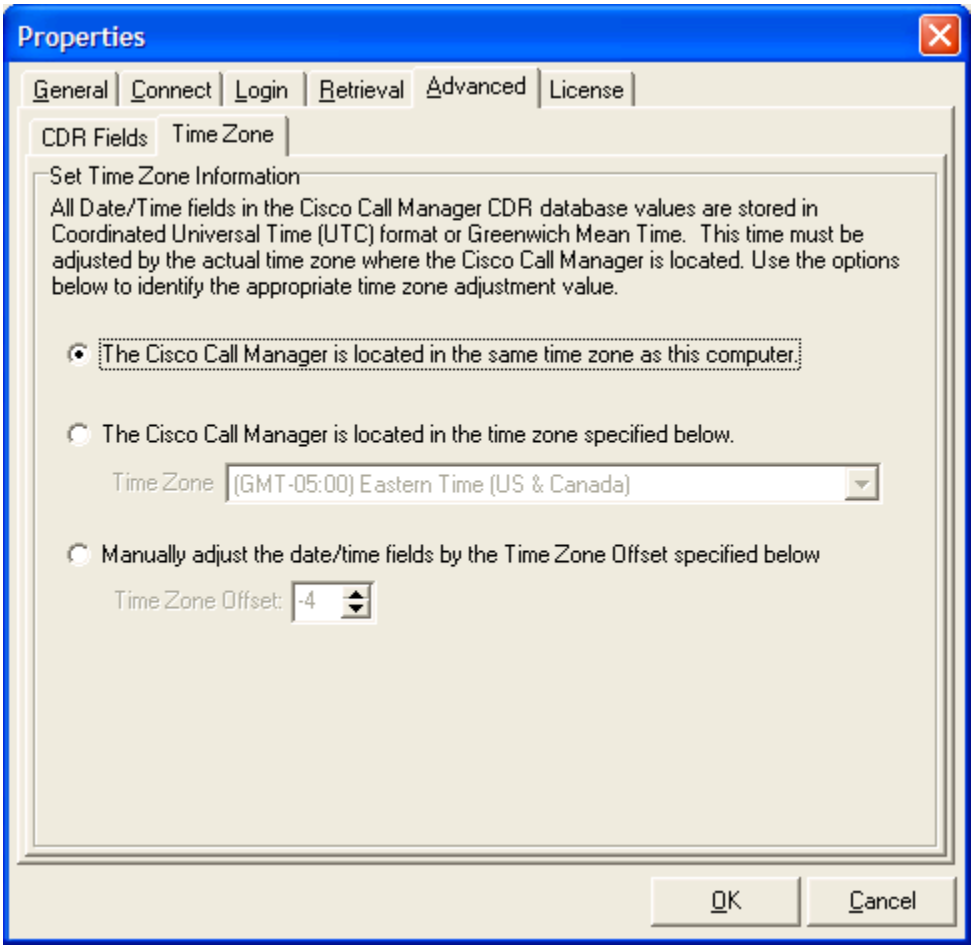


Use the **CDR Fields** tab to select which CDR information will be stored in the destination file name specified on the Retrieval Tab. Add a field to the **Selected Fields** list by clicking on it and pressing the greater than (>) button. Remove a field from the Selected Fields list by clicking on it and pressing the less than (<) button. Change the order of the fields in the Selected Fields list by clicking on a field and then pressing either the Up or Down button (located bottom right corner of the screen). Press the **Clear** button to remove all fields from the Selected Field list. Press the **Default** button to select the fill the Selected Fields list with the default fields required by our call accounting software solutions (i.e. Call Accounting Mate). A list of the default fields can be found in the DEFAULT.INF file located in the software's installation directory.

5.4.2 Selecting the Time Zone

The Cisco Call Manager uses **Universal Coordinated Time (UTC)** to identify when a call was placed/received. UTC is the number of seconds elapsed since midnight on January 1, 1970. The WinLINK software can be configured to convert a call's UTC time to its applicable time zone. For example, if the Cisco Call Manager is located in New York then the software must adjust the UTC time by 5 hours during standard time and 4 hours during daylights saving time. Use the Time Zone option to identify the time zone where the Cisco Call Manager is located.

Click the **Time Zone** tab, located on the Advanced Properties tab sheet, to identify the location of your Cisco Call Manager. The Time Zone Properties should now be visible on your screen.



Select **The Cisco Call Manager is located in the same time zone as this computer** option if the Call Manager is located in the same time zone as the computer operating the WinLINK software.

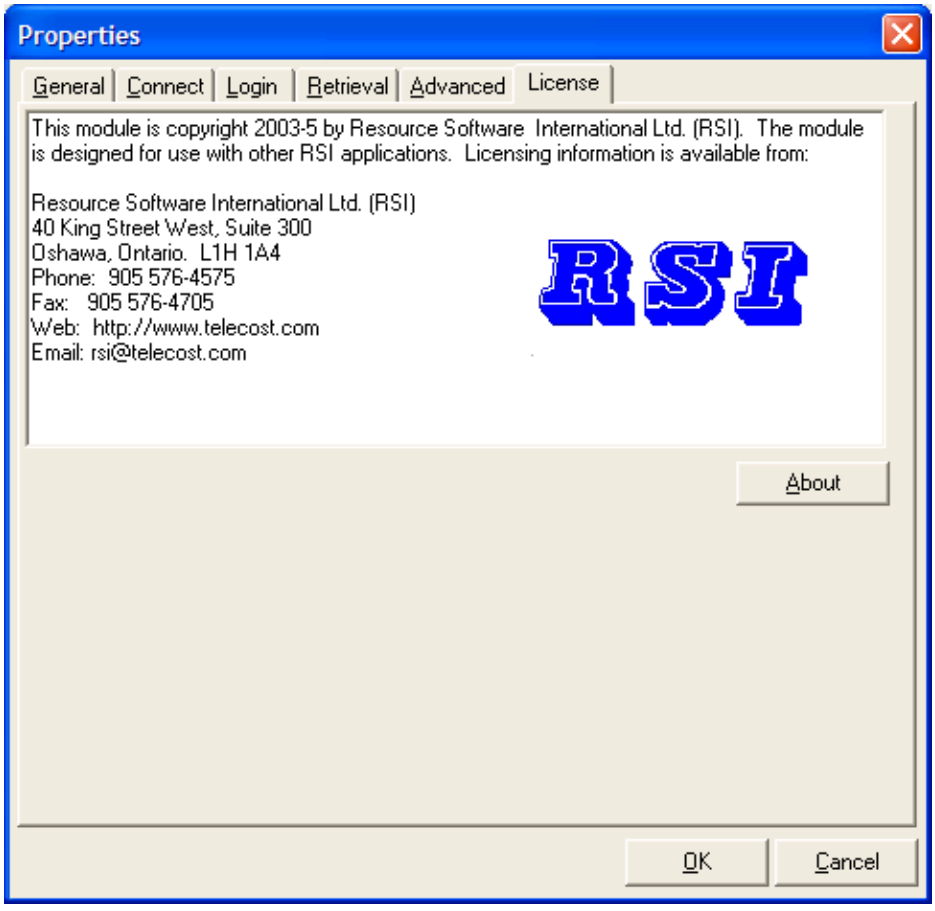
Select **The Cisco Call Manager is located in the time zone specified below** option if the WinLINK software is not located in the same time zone as the Cisco Call Manager. For example, if the WinLINK software is located in a customer's New York office and the Call Manager is located in their Los Angeles branch office then activate this option and set the **Time Zone** option to (GMT – 08:00) Pacific Time (US & Canada); Tijuana.

Select the **Manually adjust the date/time fields by the Time Zone Offset** specified below option to adjust each call's date and time by the number of hours specified. For locations west of the (GMT) Greenwich Mean Time Zone the numbers of hours specified should be negative. For locations east of the (GMT) Greenwich Mean Time Zone the number of hours specified should be positive.

Only the first two time zone options listed above adjust for daylight savings times. If the time zone where the Cisco Call Manager is located utilizes daylights savings time at any time during the year then you should not select the manually adjust option. Selecting the incorrect time zone option will result in the call records date/time being reported incorrectly.

5.5 WinLINK Software License Information

Access the WinLINK software license information by selecting a WinLINK Profile and then pressing the **Properties** button. The WinLINK Properties dialog box will be displayed. Now, press the **License** tab. The Connect Properties will now be displayed.



Press the **About** button to view additional information about the WinLINK software (i.e. version information, operating system, computer name, etc.)

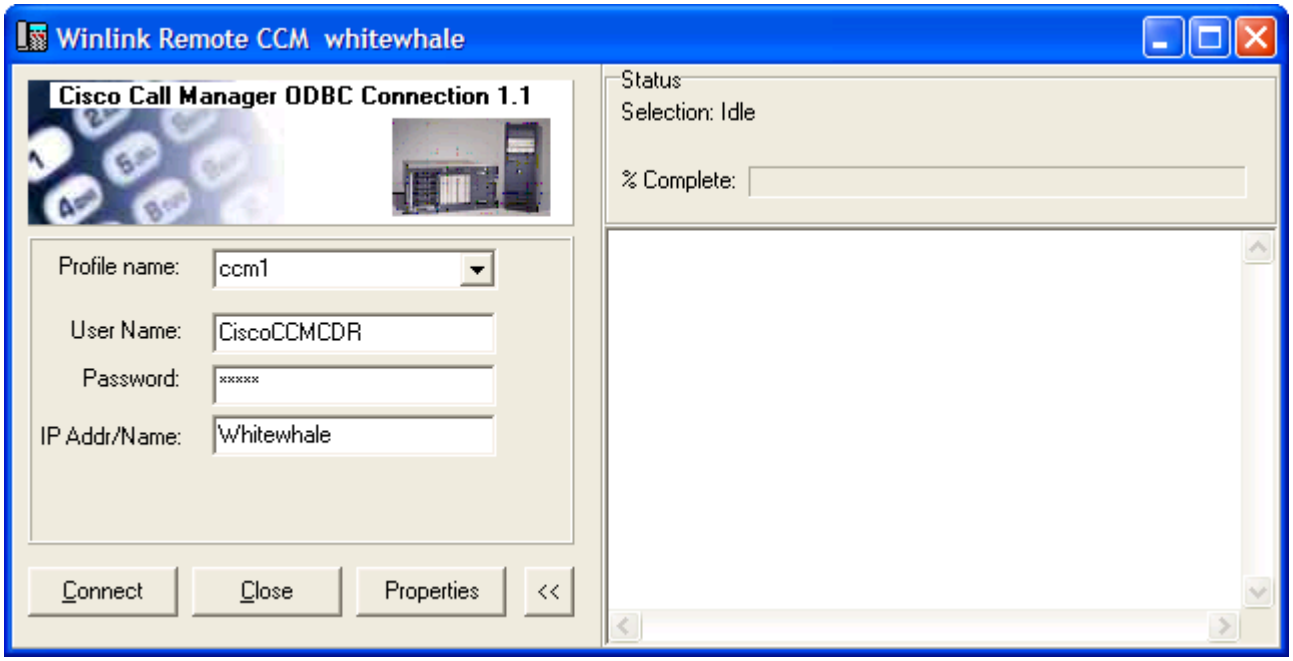
Press the OK button to save any changes you have made on any of the Properties tabs to the currently selected WinLINK Profile. Press the Cancel button to ignore any of the changes you have made.

6.0 Testing a Cisco Call Manager Profile

A WinLINK Remote CCM Cisco Call Manager Profile must be created for each Call Manager you wish to retrieve call records from (see Adding/Modifying a Cisco Call Manager Profile). Once a Profile has been created it should be tested. A successful test requires connecting to the Cisco Call Manager specified by your profile and retrieving call records. Use the following steps to test your profile.

1. Start the WinLINK Remote CCM for Cisco Call Manager software (see Starting WinLINK). The WinLINK main window should now be displayed on your screen.

2. Select the desired profile (i.e. CCM1) and then press the button containing the **>>** symbol (located bottom right corner). The main window will expand displaying progress information.



3. Press the **Connect** button to test your profile. The **Activity Log** window located on the right had side of the expanded screen should display progress information. For example, a message should be added to the activity log as the software attempts to connect to the Cisco Call Manager. Once a connection is successful additional messages will be displayed detailing the progress of the CDR pull. The Activity Log will also display a message indicating the CDR retrieval operation has completed.

4. If the CDR retrieval fails verify your profile's properties and make any necessary changes (see Adding/Modifying a Cisco Call Manager Profile). Repeat steps 2 to 4 until a successful test has occurred. If you require assistance contact RSI (see RSI Support Services).

5. Press the **Close** button to exit the WinLINK software.

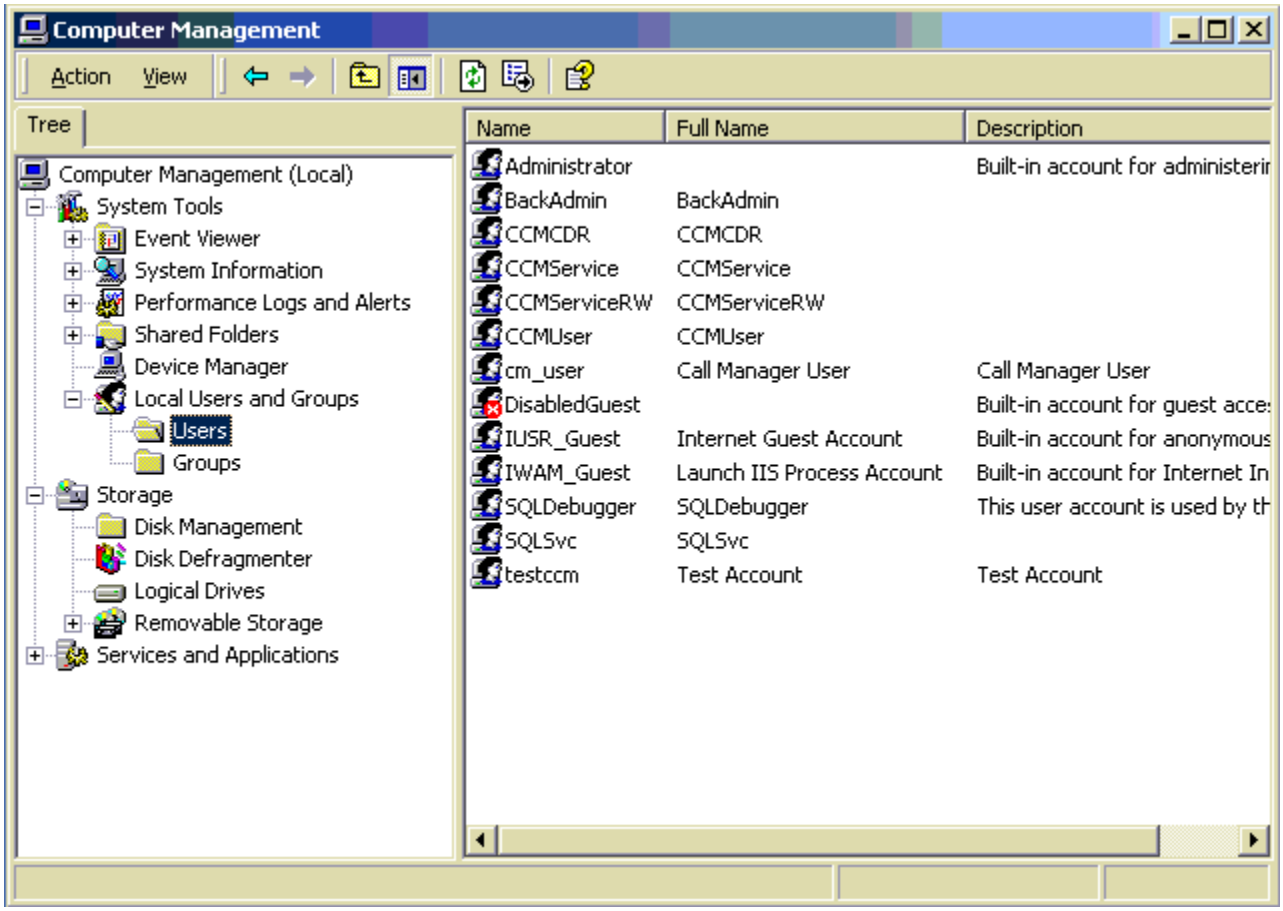
7.0 Configuring the Cisco Call Manager

The following configuration changes are only required with Cisco Call Manager Server version 4.x or later. **If you are using Cisco Call Manager version 3.x or earlier please skip this section**.

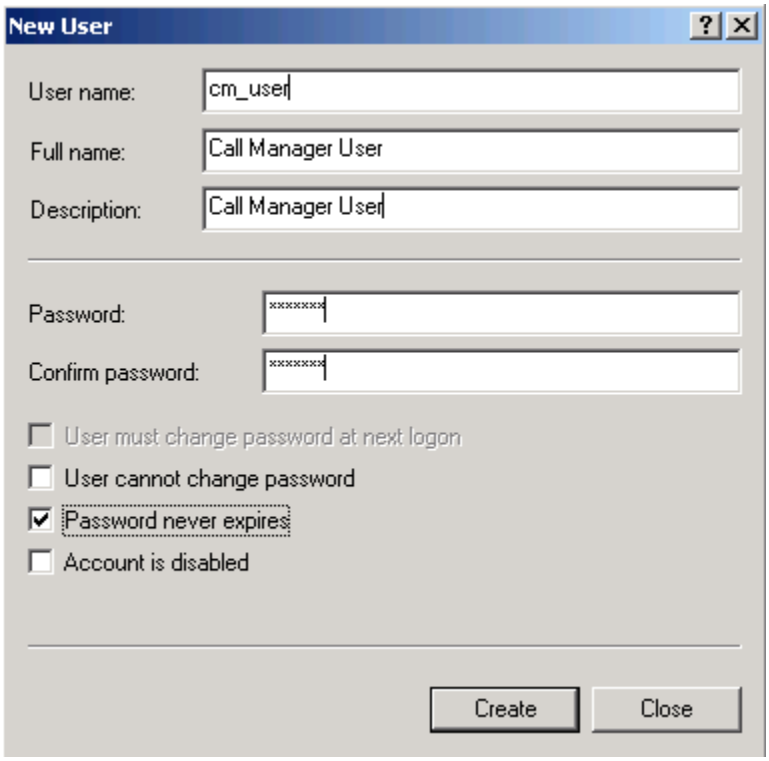
Cisco Call Manager 4.x or later requires the WinLINK's computer login id to be added to its Administrators Group. The WinLINK software will be unable to retrieve call records from the Cisco Call Manager server until the following steps are performed on the Cisco Call Manager Server.

1. Double click the Computer Management icon located on the Cisco Call Manager Server desktop. If this icon does not exist, right click the "My Computer" icon and select the Manage option.

2. The Computer Management window should now be displayed. This window contains two sections. Find and click (i.e. expand) the Local Users and Groups item (located on the left side of the screen, below System Tools). An example of this is pictured below.



3. Position your mouse over the Users folder and then press the right mouse button (i.e. right click on users). A popup menu should now appear. Select the New User option. The following window should now be displayed on your screen.

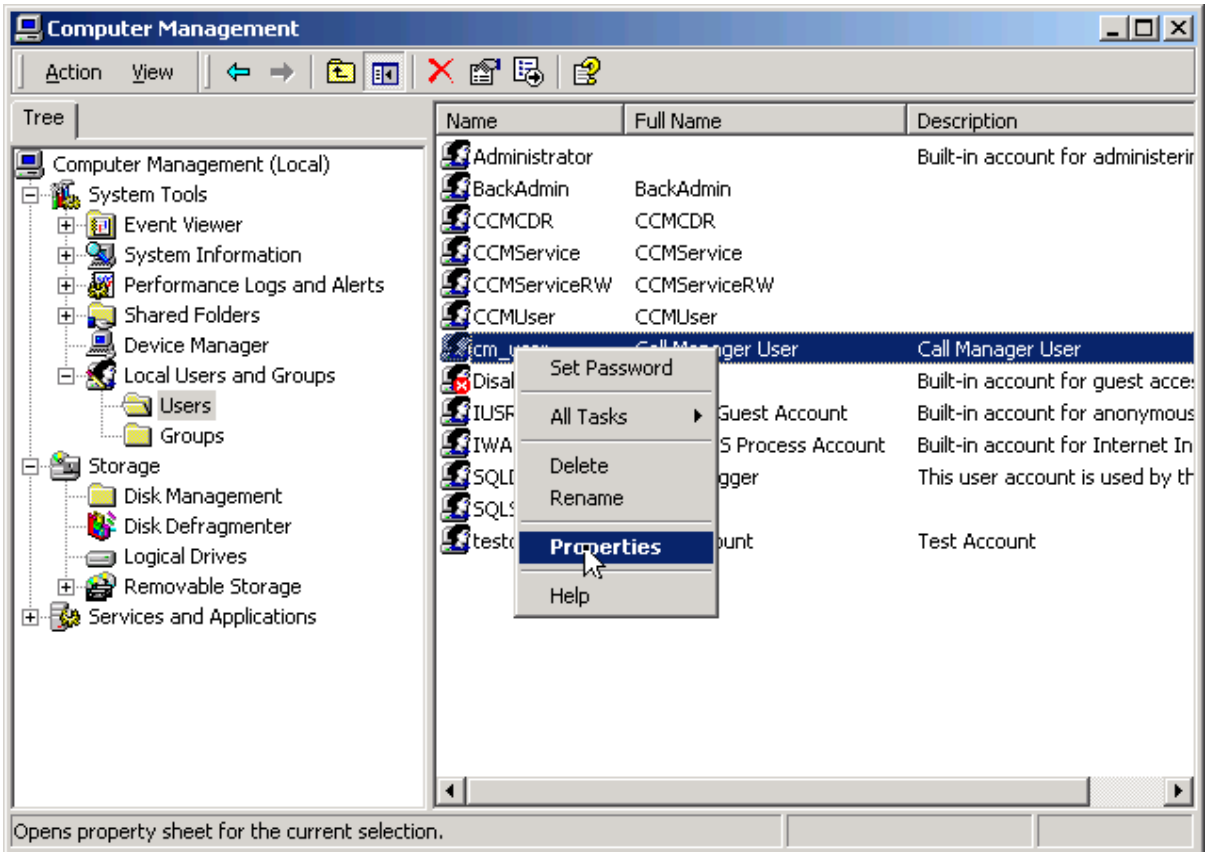


Type the WinLink computer's login user id (i.e. the user id you enter when you log into the computer) into the **User Name** box. Next, type "Call Manager User" into the **Full name** and **Description** boxes. Note: these boxes are for descriptive purposes only and can contain any value. Next, type the WinLINK computer's login password into the **password** box. Finally, check the **Password never expires** option. Failure to check this option may result in the WinLINK IP Software failing at a later date (i.e. if unchecked the call manager server will require the password to be modified every xx days).

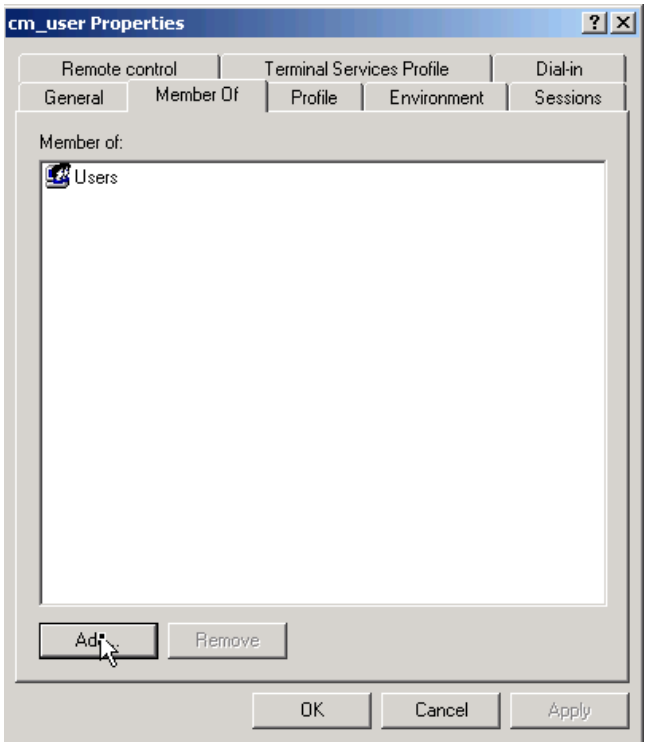
Note: The username and password values specified above must always be the same as the WinLINK's computer login username and password. Whenever the WinLINK's computer login user id and password are changed these values must be modified to reflect the changes.

4. Now press the **Create** button. The username and password has now been added to the Call Manager Server's Administrators Group. Press the Close button to exit this window. The new user name should now be visible on the right hand side of the screen.

5. Position the mouse over the newly created user and press the right mouse button (i.e. right click the new user). A popup menu should now be displayed. An example of this is pictured below.

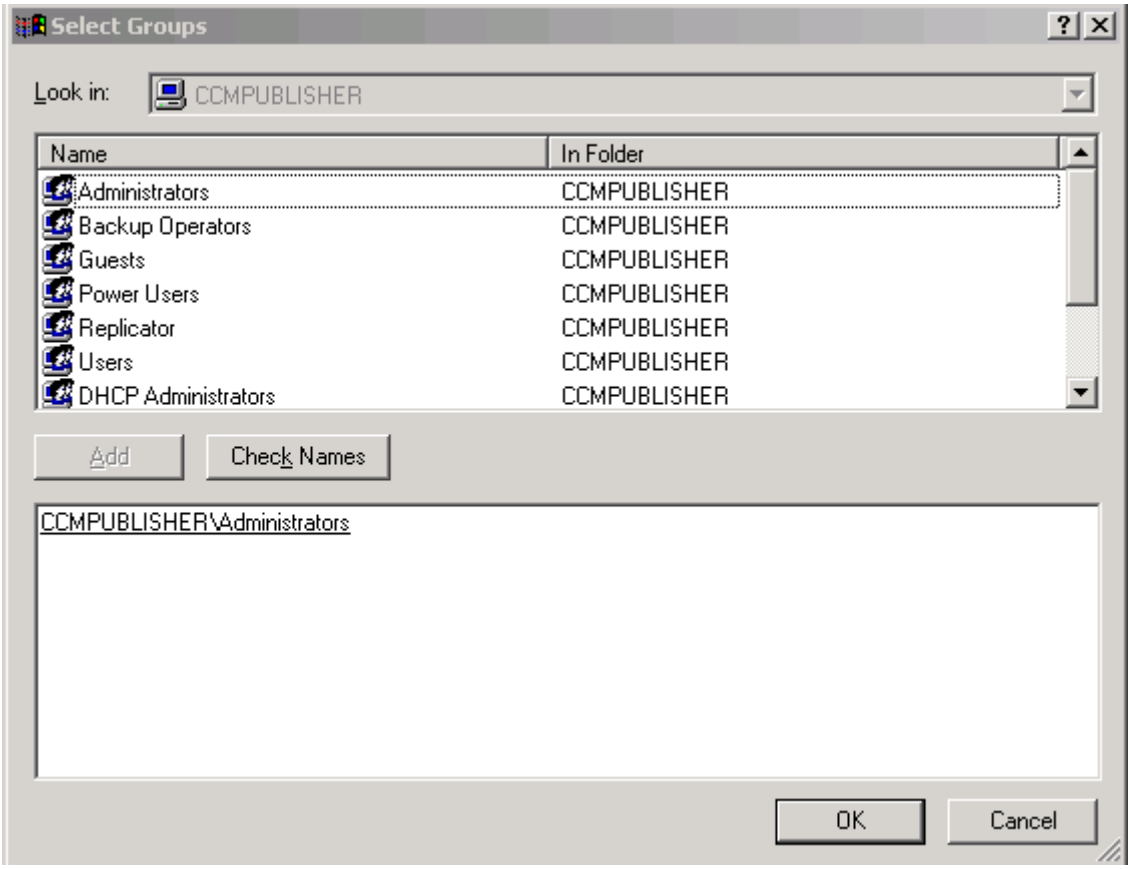


6. Select the **Properties** menu item. The user's Properties dialog box should now be visible. Display the group this user belongs to by clicking the **Member of** tab.



The above window illustrates the newly created user is a member of the **Users** group.

7. Now press the **Add** button (located in bottom left corner of the Member of screen). The Select Groups dialog should now be displayed.



Locate the **Administrators** item and then press the **Add** button. The Administrators group should now appear in the lower portion of this screen.

8. Press the **OK** button. The **Member Of** dialog box depicted in step 6 will be redisplayed. The Member of list should now contain Users and Administrators. Press the **Apply** button and then the **OK** button.

The WinLINK login user name has now been successfully added to the Cisco Call Manager Server.

Note: The WinLINK IP Serial and Data Storage software will be unable to collect call record data (SMDR/CDR) from Cisco Call Manager Server 4.x or later until the above steps have been completed.

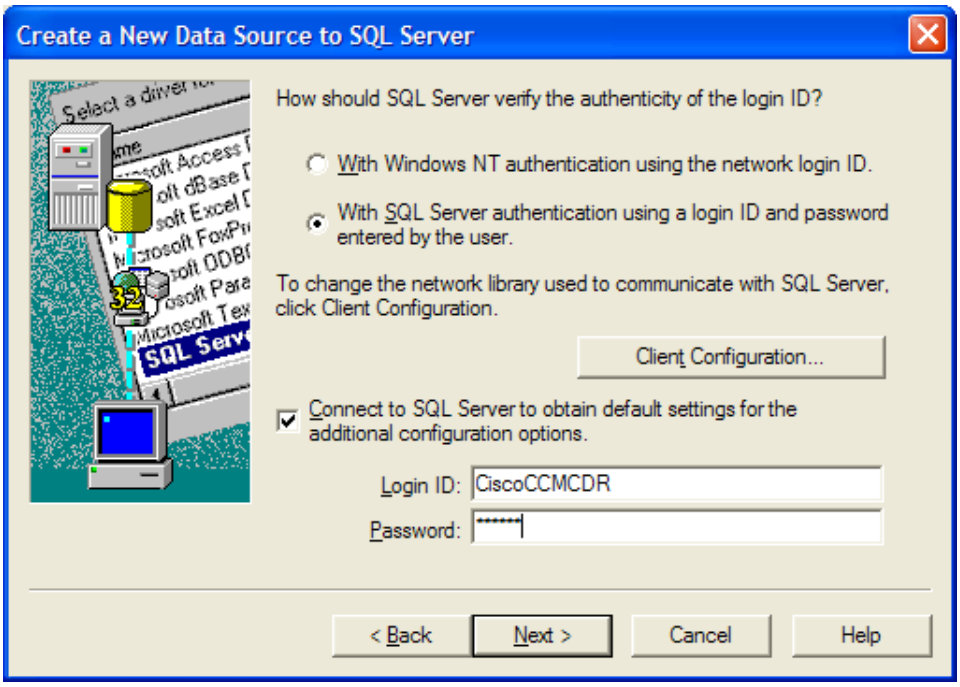
Warning: The above steps should only be performed by qualified personnel (i.e. the Cisco Call Manager administrator or your vendor).

8.0 Trouble Shooting

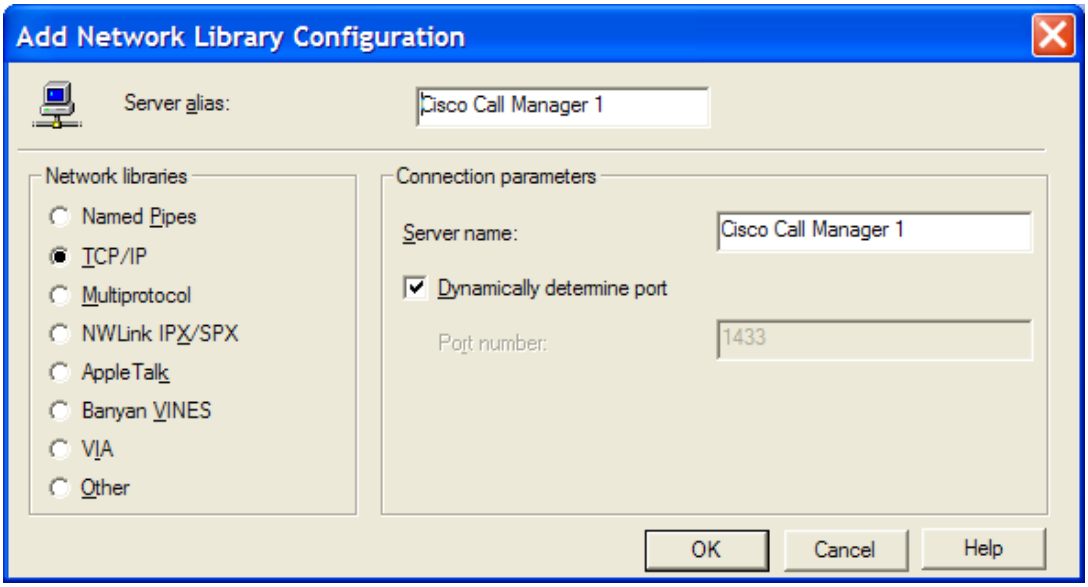
The following describes and provides solutions for common problems encountered utilizing the WinLINK IP & Serial Storage (Cisco Call Manager) software.

8.1 Connection Test to Cisco Call Manager Server Fails

If the Connection test to your Cisco Call Manager fails press the Back button on the configuration wizard until the following window appears.



Now press the **Client Configuration** button. The Edit Network Library Configuration window should now be displayed on your screen.

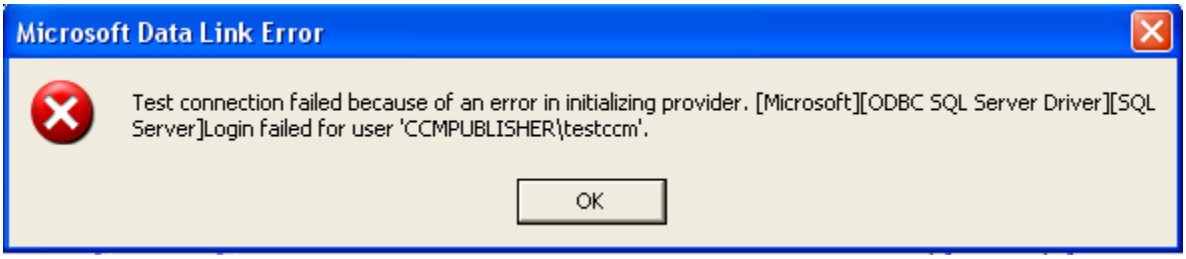


Use this window to verify your communication settings. The **Network libraries** option should be set to **TCP/IP**. The server name box should contain either the IP address or computer name of the Cisco Call Manager. Finally, check the **Dynamically determine port** option. Press the OK button to continue.

If problems persist contact your network administrator or Cisco vendor for assistance.

8.2 Microsoft Data Link Error

The Microsoft Data Link Error may be displayed when either testing your connection or when the WinLINK IP software attempts to connect to the Cisco Call Manager. An example of this error message is depicted below.



This message only occurs in environments utilizing Cisco Call Manager version 4.x or later. It occurs when the WinLINK's computer login user id has not been added to the Administrators group of the Cisco Call Manager. For information on how to correct this error please see the Cisco Call Manager Configuration section of this guide.

8.3 Unable to Retrieve Records from the Cisco Call Manager

The WinLINK software connects to the Cisco Call Manager via an ODBC connection and then executes SQL statements to retrieve call records. If the software fails to collect any records use the following steps to resolve this issue.

1. Verify the Cisco Call Manager contains call records. Use an SQL query tool such as Microsoft's SQL Query Analyzer to view the call manager's call detail record database and verify it contains records. Make a few test telephone calls and verify they get added to the database. Next, instruct the WinLINK software to collect new records from the call manager. If this does not resolve your problem continue to step 2.

2. Verify the ODBC connection information (including call manager name, call detail database name, user id and password) you provided in the profile is valid (see Adding/Modifying a Cisco Call Manager Profile). If this does not resolve your problem continue to step 3.

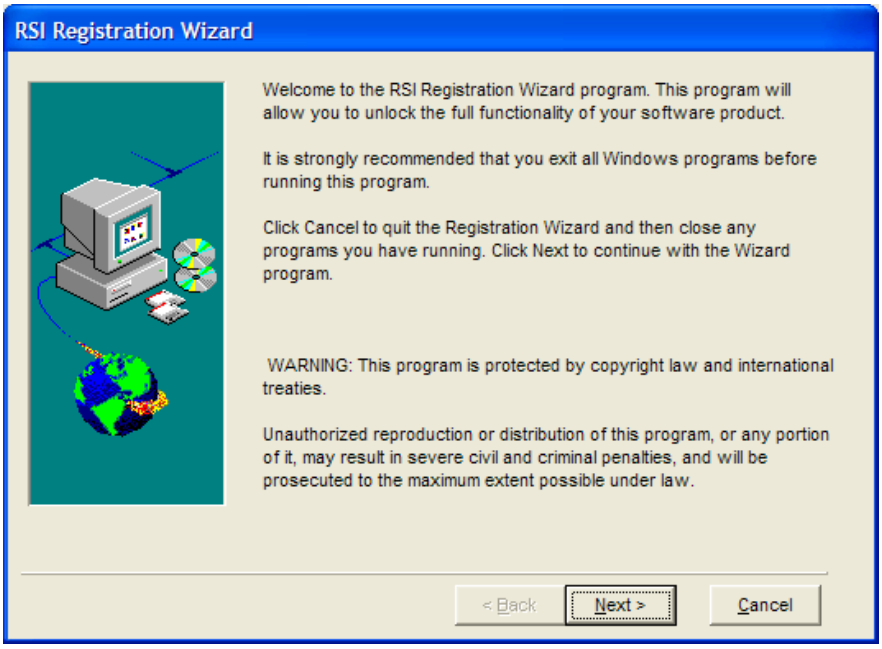
3. Examine the record collection method the WinLINK profile is using to retrieve call records from the Call Manager. The WinLINK software can collect records using one of the following methods: No Records, All Records, New Records Only, By Date and By SQL Query. Verify the No Records collection method has not been selected. If it has choose a different record collection method. If the All Records collection method was selected try using the New Records Only collection method and set the start date/time to the date of the first call record contained in the call manager. If the New Records Only or By Date records collection method has been selected reduce the size of the increment specified (for example if the increment period is 7 days try reducing it to 1 day, if its 1 day try reducing it to 12 hours, etc.). Finally if the By SQL Query collection method has been selected verify the SQL query provided is valid and the call

manager contains records matching the query criteria. If you are unable to make the SQL Query method work change the collection method to New Records Only. For more information see the Retrieving Call Records section of this guide.

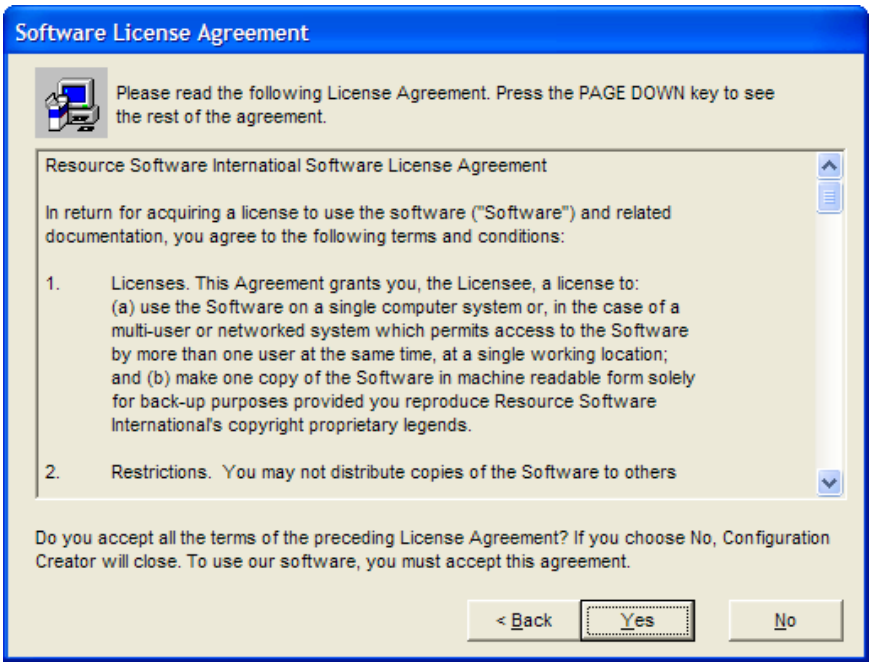
If you are still unable to collect data from your call manager please contact RSI Support Services for assistance.

9.0 Registering your Software

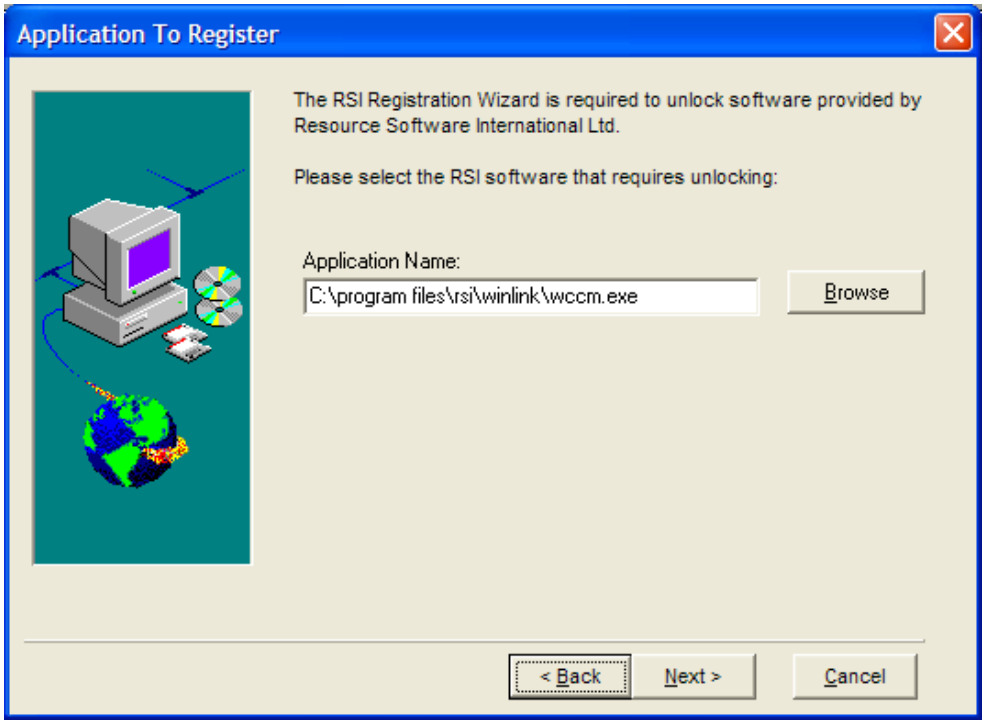
Unless your WinLINK Software is registered it will operate on your computer for only 31 days. You can register your software at any time by pressing the Register button. You do **NOT** have to register the software to complete your installation. In fact you can continue to use your software for up to 31 days after it has been installed without registering it. Press the Register button to register your WinLINK software. The **RSI Registration Wizard** should now appear on your screen.



Press the **Next** button to continue with the Registration. The **Software License Agreement** will be displayed.



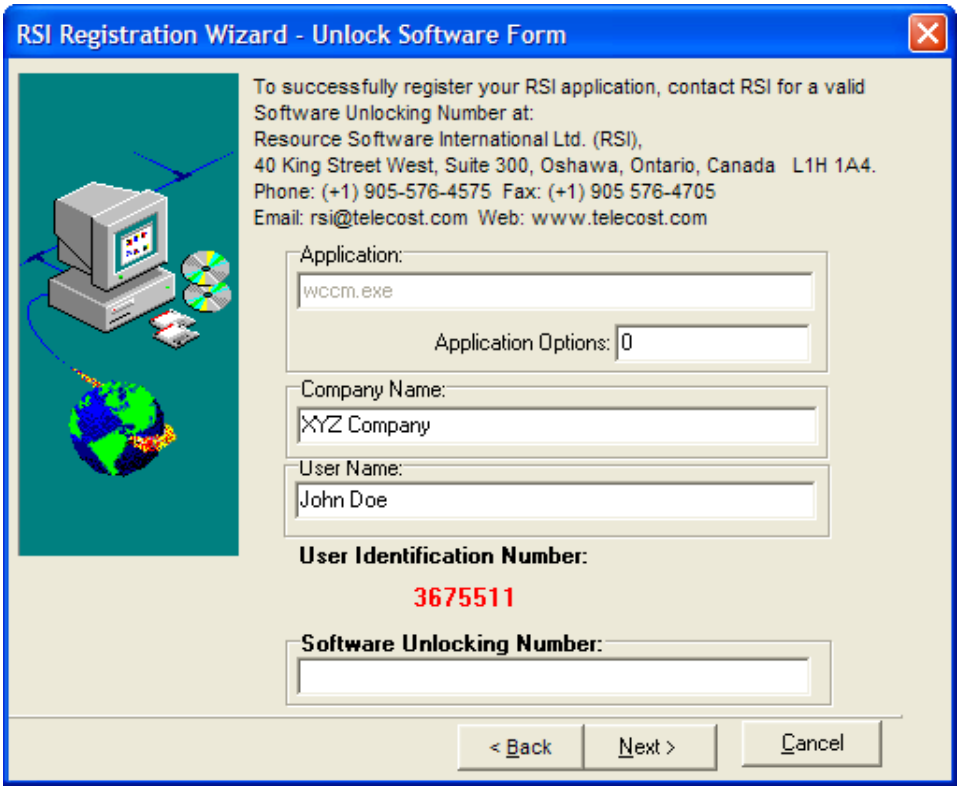
Press the **Yes** button to continue. The **Application To Register** window will be displayed. The **Application Name** box should already contain the location where the WinLINK software was installed.



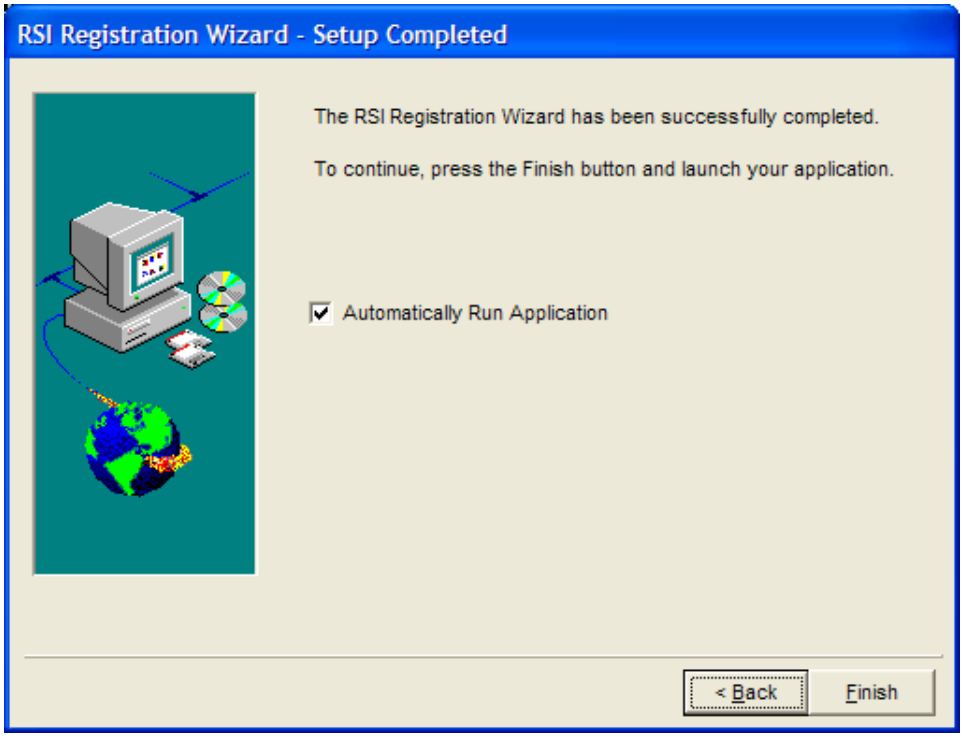
You should not have to change anything on this screen. Press the **Next** button to continue.

Enter your WinLINK Software **Serial Number or CD Key** into the space provided. This 14 character serial number is usually located on the back of the CD-ROM packaging. If you downloaded the software from our website this number will have been sent to you via email. If you do not have a serial number contact RSI (see RSI Support Services). Press the **Next** button to continue.

The **Unlock Software Form** will now appear on your screen.



Fill in the **Company Name** and **User Name** information. Do **NOT** modify the **Application Options** box unless instructed to do so by an RSI technician. Next, contact RSI (see RSI Support Services) and provide us with the User Identification Number (**red**) located on this screen. Type the unlocking number provided by our technician, in the space provided, and then press the **Next** button.



Your software is now registered. Press the Finish button to complete the Registration process.

10.0 Spectrum of Services

Resource Software International (RSI) and its founders have been developing Telecommunications Management products for over 10 years. RSI has been at the forefront of the design, development and distribution of the most dynamic voice & data management systems worldwide. In fact, our products are respected and utilized by most major providers of long distance services. Our unique approach to call management, computer telephony integration, telephone invoice management, carrier comparisons, facilities management, toll fraud, attendant directory and traffic analysis are the key components of our suite of Voice and Data Management spectrum of services. We believe communication is the essential key in a world that demands instantaneous results. Our spectrum of services highlights our commitment to the management of communication tools:

10.1 Call Accounting for Windows

The most sophisticated, dynamic and user-friendly universal costing engine of any call management system. The system utilizes complete measured distance formulae, virtual, usage sensitive, surcharges, taxation, built-in multi-carrier/service comparisons, least cost/best route analysis for complete evaluation of network efficiency. The basic universal costing engine is completely table driven for all types of telephone calls including: international, inter-carrier, Caribbean, rate step, virtual private network, meter pulse and variant city co-ordinates. RSI offers modules designed for the specific need of Hospitality and Professional Charge-back environments.

10.2 Facilities Management

A fully featured management tool for cost allocation of equipment inventory, work orders, trouble/repair tickets and cable configuration. The system fully integrates with all other RSI applications to provide you with complete consolidation of voice & data management bottom line expenses. The system is designed to unlimited user-definable corporate levels. RSI offers modules designed specifically for both voice & data applications.

10.3 Database Management for Windows

This attendant directory management system may function as a centralized stand-alone system or integrated with other RSI applications. The system may be user-defined for custom corporate directories. The sub-searching techniques may be employed via phonetic, wildcard and exact match prerequisites. RSI now offers a network aware version of this product.

10.4 PBX Alarm Management for Windows

The component acts as a watchdog of your network activity. Special user-definable queries may be employed to track active/inactive trunks, sequential dialing patterns, misuse/abuse, excessive duration's, PBX error codes, hardware failure and unauthorized calling. Various levels of condition codes may be routed to various alert destinations: consoles, printers, audible alarms, remote offices, etc..

10.5 Invoice Management

Our software employs built in techniques for importing/exporting of telephone invoices for carrier/service comparisons and cost consolidation. Special translation algorithms are available for invoices from any long distance supplier. These invoices may be re-priced, reallocated, adjusted for bill-back, export to accounting systems or evaluated for feasibility. This module may be fully integrated with our Call Accounting software.

10.6 Carrier Comparisons

This module employs a built-in costing engine for measurement of best available services, least cost, and most favorable calling patterns. The module may be fully integrated with any of our Call Accounting Applications.

10.7 Traffic Analysis

The traffic analysis module employs complete Poisson and Erlang formulae for determining grade of service and trunk requirements

10.8 RSI Service Bureau

RSI offers complete outsourcing services for remote polling, authorization code billing, charge-back, network planning, traffic analysis, carrier/service comparisons, telephone invoice management

10.9 CTI Applications

Computer Telephony Integration is here now. RSI has formed partnerships and affiliations with telephone equipment manufacturers, network development organizations and other dynamic software companies to provide its customers with leading edge CTI solutions. Our CTI applications include Caller ID Screen Pops, client/server applications, introduction of forced and verified account codes, text messaging and alarm notifications. The list of our CTI applications continues to grow each year.

10.10 ACD Reporting

RSI offers an easy to use, inexpensive application to capture and report on ACD statistics generate by your telephone system.

For more information about these services or for any other inquiries please contact us via our RSI Sales and Support Services.